

=> fil reg

FILE 'REGISTRY' ENTERED AT 10:49:53 ON 04 SEP 2009

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STRUCTURE FILE UPDATES: 3 SEP 2009 HIGHEST RN 1180131-54-7

DICTIONARY FILE UPDATES: 3 SEP 2009 HIGHEST RN 1180131-54-7

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 26, 2009.

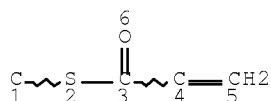
Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stdoc/properties.html>

=> d que stat l15

L3 STR



NODE ATTRIBUTES:

NSPEC IS RC AT 1

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

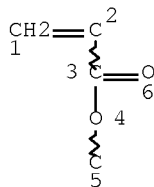
GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 6

STEREO ATTRIBUTES: NONE

L4 STR



NODE ATTRIBUTES:

NSPEC IS RC AT 5

DEFAULT MLEVEL IS ATOM

September 4, 2009

10/553,488

2

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

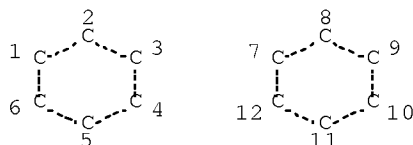
RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 6

STEREO ATTRIBUTES: NONE

L7 2527 SEA FILE=REGISTRY SSS FUL L3

L13 STR



NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 12

STEREO ATTRIBUTES: NONE

L15 349 SEA FILE=REGISTRY SUB=L7 SSS FUL L3 AND L4 AND L13

100.0% PROCESSED 399 ITERATIONS

349 ANSWERS

SEARCH TIME: 00.00.01

=> d his nofile

(FILE 'HOME' ENTERED AT 10:21:10 ON 04 SEP 2009)

FILE 'HCAPLUS' ENTERED AT 10:22:43 ON 04 SEP 2009

L1 2 SEA SPE=ON ABB=ON PLU=ON US20070087123/PN
SEL RN

FILE 'REGISTRY' ENTERED AT 10:22:56 ON 04 SEP 2009

L2 13 SEA SPE=ON ABB=ON PLU=ON (784208-48-6/BI OR 117651-91-
9/BI OR 13048-33-4/BI OR 162881-26-7/BI OR 1680-21-3/BI
OR 17831-71-9/BI OR 2223-82-7/BI OR 2399-48-6/BI OR
4074-88-8/BI OR 41637-38-1/BI OR 845647-86-1/BI OR
845647-87-2/BI OR 845647-88-3/BI)

FILE 'LREGISTRY' ENTERED AT 10:23:15 ON 04 SEP 2009

L3 STR

L4 STR

FILE 'REGISTRY' ENTERED AT 10:30:01 ON 04 SEP 2009

L5 31 SEA SSS SAM L3 AND L4

L6 28 SEA SSS SAM L3

L7 2527 SEA SSS FUL L3

L8 5 SEA SPE=ON ABB=ON PLU=ON L2 AND L7

SAV L7 PEZ488/A

L9 STR

L10 24 SEA SUB=L7 SSS SAM L3 AND L4 AND L9

L11 578 SEA SUB=L7 SSS FUL L3 AND L4 AND L9
SAV L11 PEZ488S1/A
L12 4 SEA SPE=ON ABB=ON PLU=ON L2 AND L11
L13 STR L9
L14 17 SEA SUB=L7 SSS SAM L3 AND L4 AND L13
L15 349 SEA SUB=L7 SSS FUL L3 AND L4 AND L13
L16 4 SEA SPE=ON ABB=ON PLU=ON L2 AND L15
SAV L15 PEZ488S2/A

FILE 'HCAPLUS' ENTERED AT 10:38:23 ON 04 SEP 2009
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D AN 6
L18 140 SEA SPE=ON ABB=ON PLU=ON L15
L19 116 SEA SPE=ON ABB=ON PLU=ON L18 AND (PY<=2003 OR
PRY<=2003 OR AY<=2003)

FILE 'REGISTRY' ENTERED AT 10:39:10 ON 04 SEP 2009
L20 1316 SEA SPE=ON ABB=ON PLU=ON 41637-38-1/CRN
L21 44 SEA SPE=ON ABB=ON PLU=ON L15 AND L20

FILE 'HCAPLUS' ENTERED AT 10:41:00 ON 04 SEP 2009
L22 26 SEA SPE=ON ABB=ON PLU=ON L21
L23 19 SEA SPE=ON ABB=ON PLU=ON L22 AND L19
L24 QUE SPE=ON ABB=ON PLU=ON (PHOTO OR LIGHT) (A) (SENS? OR
REACTIV? OR ACTIV? OR POLYMERIZ? OR CURABLE OR LINK?) OR
PHOTOSENS? OR LIGHTSENS? OR PHOTOACTIVE? OR PHOTOREACTIV?
OR PHOTOLINK? OR PHOTOCURABLE OR PHOTOPOLYMERIZ? OR
PHOTOCHEM#(A) (ACTIVE? OR REACTIVE? OR LINK?)
L25 8 SEA SPE=ON ABB=ON PLU=ON L23 AND L24
L26 2 SEA SPE=ON ABB=ON PLU=ON L25 AND L1
L27 6 SEA SPE=ON ABB=ON PLU=ON L25 NOT L26
L28 11 SEA SPE=ON ABB=ON PLU=ON L23 NOT (L26 OR L27)
L29 24 SEA SPE=ON ABB=ON PLU=ON L19 AND L24
L30 16 SEA SPE=ON ABB=ON PLU=ON L29 NOT (L26 OR L27 OR L28)

=> fil hcap

FILE 'HCAPLUS' ENTERED AT 10:50:02 ON 04 SEP 2009
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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FILE COVERS 1907 - 4 Sep 2009 VOL 151 ISS 11
FILE LAST UPDATED: 3 Sep 2009 (20090903/ED)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Jun 2009
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Jun 2009

HCAplus now includes complete International Patent Classification (IPC) reclassification data for the third quarter of 2009.

CAS Information Use Policies apply and are available at:

<http://www.cas.org/legal/infopolicy.html>

This file contains CAS Registry Numbers for easy and accurate substance identification.

The ALL, BIB, MAX, and STD display formats in the CA/CAPLUS family of databases have been updated to include new citing references information. This enhancement may impact record import into database management software. For additional information, refer to NEWS 9.

=> d ibib abs fhitr hitind l26 1-2

L26 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2007:433892 HCAPLUS Full-text

DOCUMENT NUMBER: 146:423174

TITLE: Photocurable adhesive composition and its use in the optical field

INVENTOR(S): Weber, Steven; Jiang, Peiqi; Turshani, Yassin; Jallouli, Aref

PATENT ASSIGNEE(S): Essilor International Compagnie Generale D'Optique, Fr.

SOURCE: U.S. Pat. Appl. Publ., 25pp., Cont.-in-part of U.S. Ser. No. 417,525, abandoned.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20070087123	A1	20070419	US 2006-553488	20060809
			<--	
WO 2004092787	A1	20041028	WO 2004-EP4114	20040415

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W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2003-417525 B2 20030417

<--

AB The invention concerns a ~~photocurable~~ adhesive composition comprising, based on total weight of ~~photopolymerizable~~ monomers and/or oligomers of the composition: 5 to 60% of at least one mono or polyacrylate monomer or oligomer thereof (A); 5 to 50% of at least one thio(meth)acrylate monomer or oligomer thereof (B); and 20 to 50% of at least one aromatic dimethacrylate monomer or oligomer thereof (C); with the proviso that the composition does not contain a brominated monofunctional acrylate.

IT ~~784208-48-6P~~, Bis(methacryloylthioethyl)sulfide-Diethyleneglycol diacrylate-ethoxylated bisphenol A dimethacrylate copolymer

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(~~photocurable~~ adhesive composition and its use in the optical field)

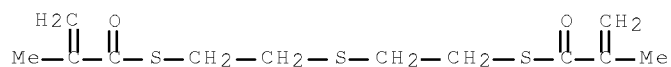
RN 784208-48-6 HCAPLUS

CN 2-Propenoic acid, 1,1'-(oxydi-2,1-ethanediyl) ester, polymer with α, α' -[(1-methylethylidene)di-4,1-phenylene]bis[ω -[(2-methyl-1-oxo-2-propen-1-yl)oxy]poly(oxy-1,2-ethanediyl)] and S1,S1'-(thiodi-2,1-ethanediyl) bis(2-methyl-2-propenethioate) (CA INDEX NAME)

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CRN 117651-91-9

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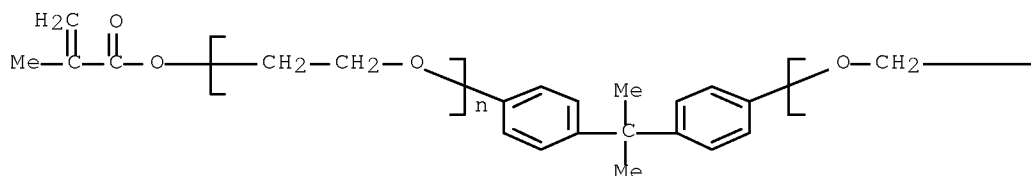


CM 2

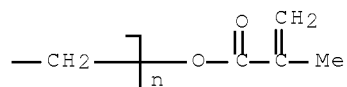
CRN 41637-38-1

CMF (C2 H4 O)_n (C2 H4 O)_n C23 H24 O4

CCI PMS



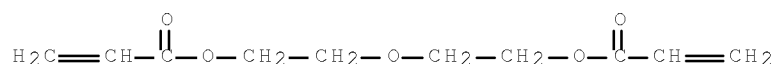
PAGE 1-A



CM 3

CRN 4074-88-8

CMF C10 H14 O5



INCL 427355000; 522178000; 156332000; 156295000; 156275700

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 42, 73

ST photocurable adhesive optical material lens coating

IT Lenses

(blank; photocurable adhesive composition and its use in the optical field)

IT Coating materials

Optical materials

(photocurable adhesive composition and its use in the optical field)

IT Adhesives

(photocurable; photocurable adhesive composition and its use in the optical field)

IT Polycarbonates, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(support; photocurable adhesive composition and its use in the optical field)

IT Plastics, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(thermoplastics; photocurable adhesive composition and its use in the optical field)

IT 784208-48-6P, Bis(methacryloylthioethyl)sulfide-

Diethyleneglycol diacrylate-ethoxylated bisphenol A dimethacrylate copolymer 845647-86-1P 845647-87-2P 845647-88-3P

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (photocurable adhesive composition and its use in the optical field)

L26 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2004:906019 HCAPLUS Full-text

DOCUMENT NUMBER: 141:380799

TITLE: Photocurable adhesive composition and its use in the optical field

INVENTOR(S): Weber, Steven; Jiang, Peiqi; Turshani, Yassin; Jallouli, Aref

PATENT ASSIGNEE(S): Essilor International Compagnie Generale d'Optique, Fr.

September 4, 2009

10/553,488

7

SOURCE: PCT Int. Appl., 68 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 3
 PATENT INFORMATION:

PATENT NO. -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE
WO 2004092787	A1	20041028	WO 2004-EP4114	200404 15
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W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2004230413	A1	20041028	AU 2004-230413	200404 15
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CA 2522468	A1	20041028	CA 2004-2522468	200404 15
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CA 2522468	C	20090811		
EP 1629308	A1	20060301	EP 2004-727565	200404 15
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EP 1629308	B1	20081008		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
BR 2004009388	A	20060418	BR 2004-9388	200404 15
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CN 1806186	A	20060719	CN 2004-80016798	200404 15
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JP 2006526037	T	20061116	JP 2006-505182	200404 15
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AT 410708	T	20081015	AT 2004-727565	200404 15
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ES 2314392	T3	20090316	ES 2004-727565	200404

15

IN 2005DN04697 A 20070817 IN 2005-DN4697

200510
17

US 20070087123 A1 20070419 US 2006-553488

200608
09

PRIORITY APPLN. INFO.:

US 2003-417525 A

200304
17

WO 2004-EP4114 W

200404
15

AB Photocurable adhesive compns. are described which comprise (based on total weight of photopolymerizable monomers and/or oligomers) 5-60 weight % of ≥ 1 mono or polyacrylate monomer or oligomer; 5-50 weight % of ≥ 1 thio(meth)acrylate monomer or oligomer; and 20-50 weight % of ≥ 1 aromatic dimethacrylate monomer or oligomer; with the restriction that the composition does not contain a brominated monofunctional acrylate. Methods for transferring coatings from supports to thermoplastic substrates using the adhesives are also described. The substrates may be lenses, especially ophthalmic lenses. The coatings may comprise a hydrophobic top coat, an antireflective coating layer, an anti-abrasion coating layer, an impact resistant coating layer, a photochromic coating layer, a dying coating layer, a polarized coating layer, a printed layer or a stack of ≥ 2 of these coating layers. Overmolding processes are also described which produce a substrate overmolded with a cured layer of the curable adhesive composition. Processes are also described for producing laminated thermoplastic articles (e.g., ophthalmic lenses) by joining elements using the adhesives.

IT 784208-48-6, Bis-2-(methacryloylthioethyl)sulfide-diethylene glycol diacrylate-ethoxylated bisphenol A dimethacrylate copolymer

RL: TEM (Technical or engineered material use); USES (Uses)
(photocurable adhesive compns. and their uses)

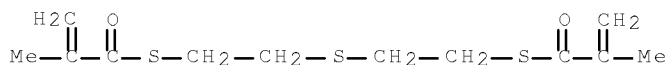
RN 784208-48-6 HCAPLUS

CN 2-Propenoic acid, 1,1'-(oxydi-2,1-ethanediyl) ester, polymer with α, α' -[(1-methylethylidene)di-4,1-phenylene]bis[ω -[(2-methyl-1-oxo-2-propen-1-yl)oxy]poly(oxy-1,2-ethanediyl)] and S1,S1'-(thiodi-2,1-ethanediyl) bis(2-methyl-2-propenethioate) (CA INDEX NAME)

CM 1

CRN 117651-91-9

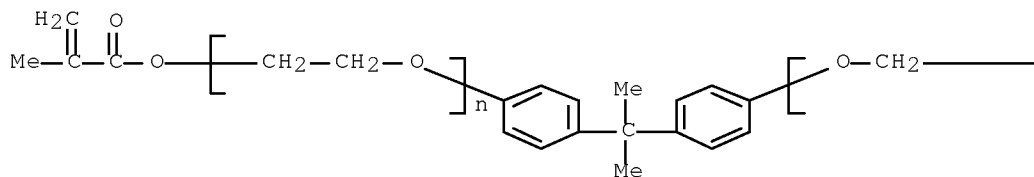
CMF C12 H18 O2 S3



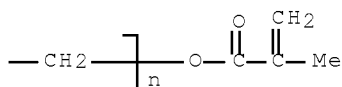
CM 2

CRN 41637-38-1
 CMF (C2 H4 O)n (C2 H4 O)n C23 H24 O4
 CCI PMS

PAGE 1-A

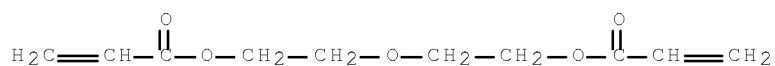


PAGE 1-B



CM 3

CRN 4074-88-8
 CMF C10 H14 O5



IC ICM G02B001-04
 ICS G02B001-10; C09J004-00; C09J133-14; C08F220-38
 CC 38-3 (Plastics Fabrication and Uses)
 Section cross-reference(s): 37, 63, 73
 ST bromoacrylate free photocurable adhesive compn;
 photocurable adhesive compn; coating transfer
 photocurable adhesive compn; overmolding process
 photocurable adhesive compn; thermoplastic laminate
 formation photocurable adhesive compn; ophthalmic lens
 photocurable adhesive compn
 IT Optical materials
 (adhesives; photocurable adhesive compns. and their
 uses)
 IT Adhesives
 (optical; photocurable adhesive compns. and their uses)
 IT Coating process
 Lamination
 Molding of plastics and rubbers
 (photocurable adhesive compns. and their uses in)
 IT Eyeglass lenses
 Lenses
 (photocurable adhesive compns. and their uses in
 producing)

IT Polycarbonates, uses
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process); USES (Uses)
(photocurable adhesive compns. and their uses with)

IT Adhesives
(photocurable; photocurable adhesive compns. and their uses)

IT Plastics, uses
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process); USES (Uses)
(thermoplastics; photocurable adhesive compns. and their uses with)

IT 162881-26-7, Irgacure 819
RL: CAT (Catalyst use); MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(photocurable adhesive compns. and their uses)

IT 1680-21-3, Triethylene glycol diacrylate 2223-82-7, Neopentyl glycoldiacrylate 2399-48-6, Tetrahydrofurfuryl acrylate 4074-88-8, Diethylene glycol diacrylate 13048-33-4, 1,6-Hexanediol diacrylate 17831-71-9, Tetraethylene glycol diacrylate 41637-38-1, Ethoxylated bisphenol A dimethacrylate 117651-91-9, Bis-2-(methacryloylthioethyl)sulfide 784208-48-6, Bis-2-(methacryloylthioethyl)sulfide-diethylene glycol diacrylate-ethoxylated bisphenol A dimethacrylate copolymer
RL: TEM (Technical or engineered material use); USES (Uses)
(photocurable adhesive compns. and their uses)

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d ibib abs fhitr hitind 127 1-6

L27 ANSWER 1 OF 6 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2005:160856 HCAPLUS Full-text

DOCUMENT NUMBER: 142:241788

TITLE: Photocurable adhesive composition and its use in the optical field

INVENTOR(S): Weber, Steven; Jiang, Peiqi; Turshani, Yassin; Jallouli, Aref

PATENT ASSIGNEE(S): Essilor International Compagnie Generale d'Optique, Fr.

SOURCE: U.S. Pat. Appl. Publ., 25 pp., Cont.-in-part of U.S. Ser. No. 417,525, abandoned.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 20050043430	A1	20050224	US 2004-862693	20040607

CN 1806186	A	20060719	CN 2004-80016798	20040415
AT 410708	T	20081015	AT 2004-727565	20040415
ES 2314392	T3	20090316	ES 2004-727565	20040415
PRIORITY APPLN. INFO.:			US 2003-417525	B2 20030417

AB The invention concerns a photocurable adhesive composition comprising, based on total weight of photopolymerizable monomers and/or oligomers of the composition: 5 to 60% of at least one mono or polyacrylate monomer or oligomer thereof (A); 5 to 50% of at least one thio(meth)acrylate monomer or oligomer thereof (B); and 20 to 50% of at least one aromatic dimethacrylate monomer or oligomer thereof (C); with the proviso that the composition does not contain a brominated monofunctional acrylate.

IT 784208-48-6P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(photocurable adhesive composition and its use in the optical field)

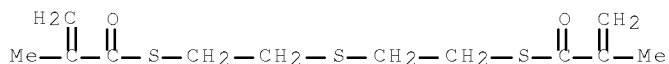
RN 784208-48-6 HCAPLUS

CN 2-Propenoic acid, 1,1'-(oxydi-2,1-ethanediyl) ester, polymer with α, α' -[(1-methylethylidene)di-4,1-phenylene]bis[ω -[(2-methyl-1-oxo-2-propen-1-yl)oxy]poly(oxy-1,2-ethanediyl)] and S1,S1'-(thiodi-2,1-ethanediyl) bis(2-methyl-2-propenethioate) (CA INDEX NAME)

CM 1

CRN 117651-91-9

CMF C12 H18 O2 S3



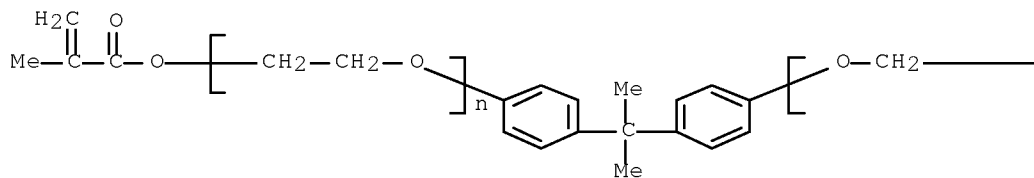
CM 2

CRN 41637-38-1

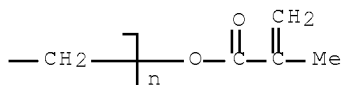
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0.33	0.33
0.34	0.34
0.35	0.35
0.36	0.36
0.37	0.37
0.38	0.38
0.39	0.39
0.40	0.40
0.41	0.41
0.42	0.42
0.43	0.43
0.44	0.44
0.45	0.45
0.46	0.46
0.47	0.47
0.48	0.48
0.49	0.49
0.50	0.50
0.51	0.51
0.52	0.52
0.53	0.53
0.54	0.54
0.55	0.55
0.56	0.56
0.57	0.57
0.58	0.58
0.59	0.59
0.60	0.60
0.61	0.61
0.62	0.62
0.63	0.63
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0.65	0.65
0.66	0.66
0.67	0.67
0.68	0.68
0.69	0.69
0.70	0.70
0.71	0.71
0.72	0.72
0.73	0.73
0.74	0.74
0.75	0.75
0.76	0.76
0.77	0.77
0.78	0.78
0.79	0.79
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PAGE 1-A



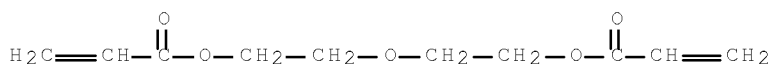
PAGE 1-B



CM 3

CRN 4074-88-8

CMF C10 H14 O5



IC ICM C08F012-30
ICS C08J003-28

INCL 522114000; X52-631.9; X52-628.6; X52-211.7; X52-211.8

CC 38-3 (Plastics Fabrication and Uses)

ST ~~photocurable~~ adhesive acrylate

IT Lenses
(blanks; ~~photocurable~~ adhesive composition and its use in the optical field)

IT Eyeglass lenses
(~~photocurable~~ adhesive composition and its use in the optical field)

IT Adhesives
(~~photocurable~~; ~~photocurable~~ adhesive composition and its use in the optical field)

IT Polycarbonates, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(substrate; ~~photocurable~~ adhesive composition and its use in the optical field)

IT Plastics, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(thermoplastics, substrate; ~~photocurable~~ adhesive composition and its use in the optical field)

IT 784208-48-6P 845647-86-1P
845647-87-2P 845647-88-3P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(~~photocurable~~ adhesive composition and its use in the optical field)

September 4, 2009

10/553,488

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L27 ANSWER 2 OF 6 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2003:417522 HCAPLUS Full-text

DOCUMENT NUMBER: 139:7676

TITLE: Radical-polymerizable compositions for
manufacture of impact-resistant eyeglass lenses

INVENTOR(S): Richard, Gilles; Primel, Odile; Yean, Leanirith

PATENT ASSIGNEE(S): Essilor International Compagnie Generale
d'Optique, Fr.

SOURCE: Fr. Demande, 30 pp.

CODEN: FRXXBL

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2832717	A1	20030530	FR 2001-15273	20011126
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FR 2832717	B1	20040709		
WO 2003046028	A1	20030605	WO 2002-FR4050	20021126
			<--	
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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2002364405	A1	20030610	AU 2002-364405	20021126
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EP 1453874	A1	20040908	EP 2002-799758	20021126
			<--	
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
JP 2005510594	T	20050421	JP 2003-547475	20021126
			<--	
US 20050107537	A1	20050519	US 2004-496743	20041209
			<--	
US 7393880	B2	20080701		
PRIORITY APPLN. INFO.:			FR 2001-15273	A 200111

26

<--
WO 2002-FR4050

W

200211

26

<--

AB Compns. for the title use are based on (A) containing $\geq 15\%$ (based on components A and B) oligomer having ≥ 2 radical-polymerizable groups that (co)polymerize to products with glass temperature $< 50^\circ$ and (B) ≥ 1 (meth)acrylic monomer having a group that promotes H bonding at concns. ≥ 15 or 35% (based on components A and B) when this monomer is methacrylic or acrylic, resp. A typical composition contained ethoxylated bisphenol A dimethacrylate (d.p. 30) 60, methacrylic acid 40, and photopolymer. initiator 0.1 parts.

IT 496045-26-2F

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(radical-polymerizable compns. for manufacture of impact-resistant eyeglass lenses)

RN 496045-26-2 HCAPLUS

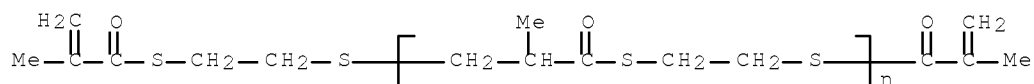
CN 2-Propenethioic acid, 2-methyl-, S,S'-1,2-ethanediy l ester, polymer with α, α' -[(1-methylethylidene)di-4,1-phenylene]bis[ω -(2-methyl-1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediy l)] and α -(2-methyl-1-oxo-2-propenyl)- ω -[[2-(2-methyl-1-oxo-2-propenyl)thio]ethyl]thio]poly[thio-1,2-ethanediy lthio(2-methyl-1-oxo-1,3-propanediy l)] (9CI) (CA INDEX NAME)

CM 1

CRN 393137-65-0

CMF (C6 H10 O S2)n C10 H14 O2 S2

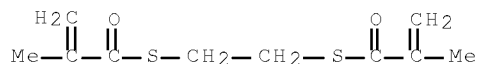
CCI PMS



CM 2

CRN 117675-95-3

CMF C10 H14 O2 S2



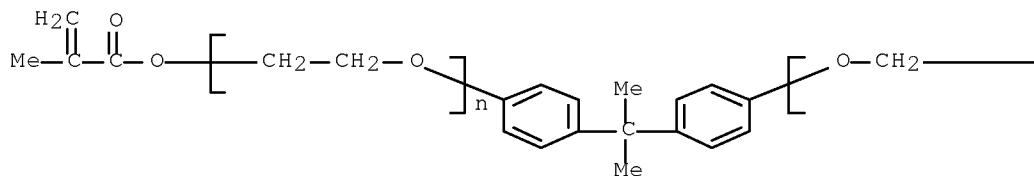
CM 3

CRN 41637-38-1

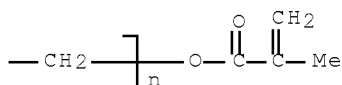
CMF (C2 H4 O)n (C2 H4 O)n C23 H24 O4

CCI PMS

PAGE 1-A



PAGE 1-B



IC ICM C08F222-20
ICS G02B001-04; C08F220-06
CC 37-6 (Plastics Manufacture and Processing)
IT 86124-28-9P, Ethoxylated bisphenol A dimethacrylate-methacrylic acid copolymer ~~496045-26-2P~~ 532984-93-3P, Acrylic acid-Craynor CN 965 copolymer 532984-94-4P, Methacrylic acid-polypropylene glycol dimethacrylate copolymer 532987-59-0P, Ethoxylated bisphenol A dimethacrylate-methacrylic acid-polypropylene glycol dimethacrylate copolymer 532987-61-4P, Ethoxylated bisphenol A dimethacrylate-methacrylic acid-mono(2-methacryloyloxyethyl) phthalate copolymer
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(radical-polymerizable compns. for manufacture of impact-resistant eyeglass lenses)

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)
REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 3 OF 6 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2001:793914 HCAPLUS Full-text
DOCUMENT NUMBER: 135:345506
TITLE: Light-resistant microlens array for optical imaging device
INVENTOR(S): Watanabe, Yuji; Kitamura, Kyoji; Hegi, Yasuhiro; Doi, Hitoshi
PATENT ASSIGNEE(S): Omron Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	

September 4, 2009

10/553,488

16

JP 2001305305

A

20011031

JP 2000-125670

200004

26

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PRIORITY APPLN. INFO.:

JP 2000-125670

200004

26

<--

OTHER SOURCE(S): MARPAT 135:345506

AB Title microlens array is made of (meth)acrylate resin-based layers of (A) a high and (B) a low refractive index, resp., wherein at least layer (A) contains benzotriazole-based light stabilizers. Thus, a high-refractive-index layer was prepared from bis(4-methacryloyl thiophenyl) sulfide (MPSMA) 60, phenoxyethyl acrylate (SR-339A) 40, a phosphorus compound photoinitiator 1.5, 2-[2-hydroxy-3-dimethylbenzyl-5-(1,1,3,3-tetramethylbutyl)phenyl]-2H-benzotriazole Tinuvin 928 4 wt%.

IT 371976-64-6P

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(preparation of light-resistant microlens array for optical imaging device)

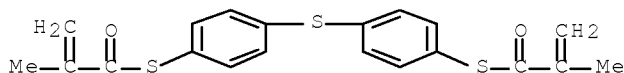
RN 371976-64-6 HCAPLUS

CN 2-Propenoic acid, 2-phenoxyethyl ester, polymer with S,S'-(thiodi-4,1-phenylene) bis(2-methyl-2-propenethioate) (9CI) (CA INDEX NAME)

CM 1

CRN 129283-82-5

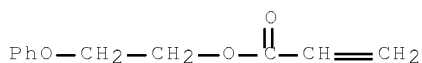
CMF C20 H18 O2 S3



CM 2

CRN 48145-04-6

CMF C11 H12 O3



IC ICM G02B003-00

ICS C08F002-50; C08F020-38; C08K005-3475; C08L033-14; G02B001-04; G02F001-1335

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 74

IT Polymerization catalysts

(photopolymn.; preparation of light-resistant microlens array for optical imaging device)

September 4, 2009

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17

IT 371788-54-4P 371976-64-6P 371976-65-7P
371976-66-8P

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP
(Properties); TEM (Technical or engineered material use); PREP
(Preparation); USES (Uses)
(preparation of light-resistant microlens array for optical imaging
device)

OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS
RECORD (2 CITINGS)

L27 ANSWER 4 OF 6 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2001:336536 HCAPLUS Full-text

DOCUMENT NUMBER: 134:334013

TITLE: Photocurable polymer lens

INVENTOR(S): Oshikiri, Tatsuya; Oyaizu, Yasushi; Uno, Kenji

PATENT ASSIGNEE(S): Seed Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

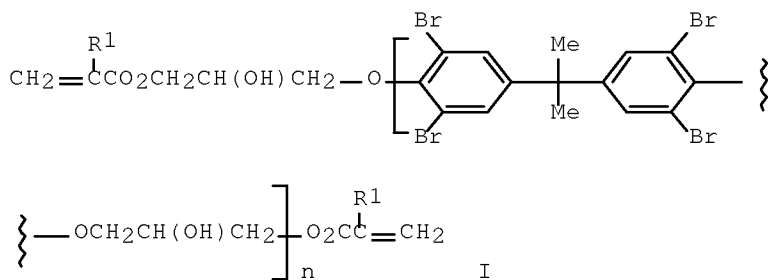
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE
JP 2001124903	A	20010511	JP 1999-303831	199910 26
			<--	
PRIORITY APPLN. INFO.:			JP 1999-303831	199910 26
			<--	

GI



AB The invention refers to a photocurable polymer comprising 10 - 70% brominated
Bisphenol A epoxy(meth)acrylate I [R¹ = H or methyl; n = integer], 30 - 90% of
other (meth)acrylate compds., and 0 - 50% copolymg. monomer which is used to
produce a lens with n = 1.58, d. = 1.5, and Abbe number ≥ 30.

IT 336850-98-7

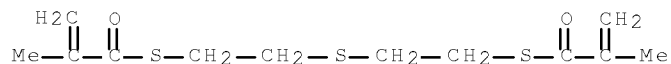
RL: DEV (Device component use); USES (Uses)
(photocurable polymer lens)

RN 336850-98-7 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-,
 (1-methylethylidene)bis[(2,6-dibromo-4,1-phenylene)oxy(2-hydroxy-3,1-
 propanediyl)] ester, polymer with
 α, α' -[(1-methylethylidene)di-4,1-phenylene]bis[ω -
 [(2-methyl-1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl)] and
 S,S'-(thiodi-2,1-ethanediyl) bis(2-methyl-2-propenethioate) (9CI)
 (CA INDEX NAME)

CM 1

CRN 117651-91-9

CMF C12 H18 O2 S3

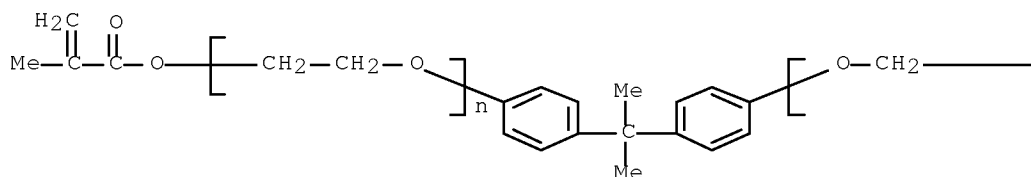


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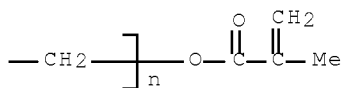
CRN 41637-38-1

CMF (C2 H4 O)_n (C2 H4 O)_n C23 H24 O4

CCI PMS



PAGE 1-A



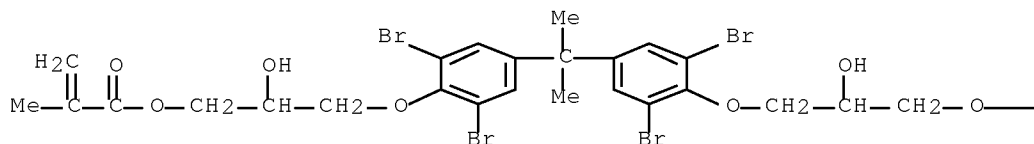
PAGE 1-B

CM 3

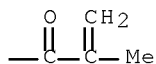
CRN 17658-95-6

CMF C29 H32 Br4 O8

PAGE 1-A



PAGE 1-B



IC ICM G02B001-04
ICS C08F002-48; C08F290-06; G02C007-02
CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)
ST ~~photocurable~~ polymer lens brominated bisphenol A epoxy methacrylate
IT Lenses
(~~photocurable~~ polymer lens)
IT Acrylic polymers, uses
RL: DEV (Device component use); USES (Uses)
(~~photocurable~~ polymer lens)
IT 336850-98-7 336850-99-8 336851-00-4
336851-01-5 336851-02-6
RL: DEV (Device component use); USES (Uses)
(~~photocurable~~ polymer lens)
OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L27 ANSWER 5 OF 6 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1999:659432 HCAPLUS Full-text
DOCUMENT NUMBER: 131:287251
TITLE: Polymerizable composition for making optical lens with high refractive index and high abbe number, and resulting lens
INVENTOR(S): Jiang, Peiqi; Widawski, Gilles; Menduni, Gilbert
PATENT ASSIGNEE(S): Essilor International Compagnie Generale d'Optique, Fr.
SOURCE: PCT Int. Appl., 48 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 9951652	A1	19991014	WO 1999-FR726	199903 29

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 CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IN,
 IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD,
 MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI,
 SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW
 RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE,
 DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
 CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

FR 2777008 A1 19991008 FR 1998-4190 199804
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 FR 2777008 B1 20000512
 AU 9929401 A 19991025 AU 1999-29401 199903
 29
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 EP 986590 A1 20000322 EP 1999-910450 199903
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 EP 986590 B1 20040121
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 JP 2002500700 T 20020108 JP 1999-550119 199903
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 JP 4312268 B2 20090812
 US 6479606 B1 20021112 US 1999-452740 199912
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 US 20030109655 A1 20030612 US 2002-225327 200208
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 US 6627718 B2 20030930
 PRIORITY APPLN. INFO.: FR 1998-4190 A 199804
 03
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 WO 1999-FR726 W 199903
 29
 <--
 US 1999-452740 A1 199912
 01
 <--

AB Said composition of polymerizable monomers comprises: (A) at least a polythio(meth)acrylate monomer, (B) at least a monomer forming a homopolymer with high Abbe number comprising at least 2 polymerizable groups, and at least one crosslinked polycyclic constitutive unit, the crosslinked polycyclic constitutive unit(s) not being directly bound to the oxygen atom, (C) at least a polythiol monomer, and optionally, (D) at least another monomer copolymerizable with (A), (B) and (C), the composition being free of all monomers comprising one or several vinyl functional groups, other than (meth)acrylic or thio(meth)acrylic groups, and different from monomers (B). A typical composition contained 50 parts bis(2-methacryloylthioethyl) sulfide, 35 parts diacryloyloxymethyltricyclodecane, 15 parts pentaerythritol

tetrakis(thioglycolate), and 0.1% each UV absorber, antioxidant, photoinitiator, and thermal initiator.

IT 246510-49-6P

RL: DEV (Device component use); IMF (Industrial manufacture); PRP (Properties); PREP (Preparation); USES (Uses)

(polymerizable compns. for making optical lens with high refractive index and high abbe number)

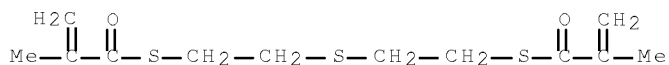
RN 246510-49-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-,
(1-methylethylidene)bis(4,1-phenyleneoxy-2,1-ethanediyl) ester, polymer with
2,2-bis[[(mercaptoacetyl)oxy]methyl]-1,3-propanediyl
bis(mercaptoacetate), (octahydro-4,7-methano-1H-indene-5,?-
diyl)bis(methylene) di-2-propenoate and S,S'-(thiodi-2,1-ethanediyl)
bis(2-methyl-2-propenethioate) (9CI) (CA INDEX NAME)

CM 1

CRN 117651-91-9

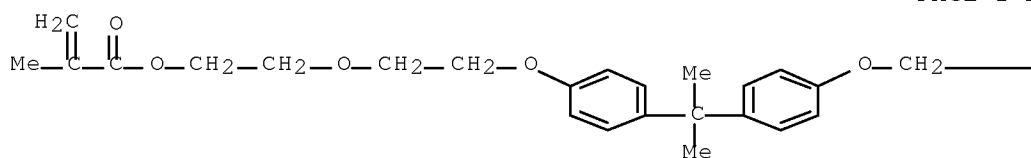
CMF C12 H18 O2 S3



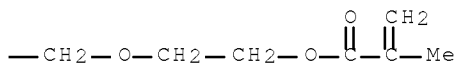
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CRN 56744-60-6

CMF C31 H40 O8



PAGE 1-B

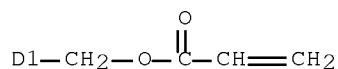
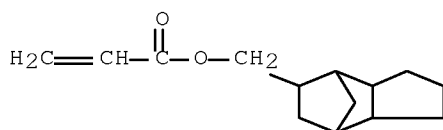


CM 3

CRN 42594-17-2

CMF C18 H24 O4

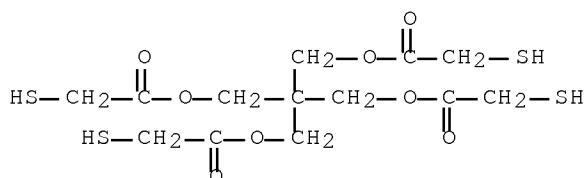
CCI IDS



CM 4

CRN 10193-99-4

CMF C13 H20 O8 S4



IC ICM C08F228-02

ICS G02B001-04

CC 37-3 (Plastics Manufacture and Processing)

IT Polymerization

(photopolymer.; of acrylic monomers containing polycyclic groups and polythiols in manufacture of lenses)

IT 246510-48-5P ~~246510-49-6P~~ 246510-50-9P 246510-52-1P

246510-54-3P 246510-56-5P 246510-58-7P

246536-40-3P

RL: DEV (Device component use); IMF (Industrial manufacture); PRP (Properties); PREP (Preparation); USES (Uses)

(polymerizable compns. for making optical lens with high refractive index and high abbe number)

OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS
RECORD (3 CITINGS)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN
THE RE FORMAT

L27 ANSWER 6 OF 6 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1997:38802 HCAPLUS Full-text

DOCUMENT NUMBER: 126:60510

ORIGINAL REFERENCE NO.: 126:11883a,11886a

TITLE: Monomers containing thio(meth)acrylates giving transparent polymers

INVENTOR(S) : Jiang, Peiqi

PATENT ASSIGNEE(S): Essilor International (Compagnie Generale
D'optique), Fr.

SOURCE: Eur. Pat. Appl., 13 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE
EP 745621	A1	19961204	EP 1996-401065	199605 15
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EP 745621	B1	19980415		
R: DE, ES, FR, GB, IT				
FR 2734828	A1	19961206	FR 1995-6443	199505 31
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FR 2734828	B1	19970711		
ES 2118008	T3	19980901	ES 1996-401065	199605 15
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AU 9654563	A	19961212	AU 1996-54563	199605 29
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AU 705542	B2	19990527		
JP 09025321	A	19970128	JP 1996-134679	199605 29
			<--	
JP 3682118	B2	20050810		
US 6184323	B1	20010206	US 1998-116143	199807 15
			<--	
PRIORITY APPLN. INFO.:			FR 1995-6443	A 199505 31
			<--	
			US 1996-651283	B1 199605 22
			<--	

AB The title monomers, capable of rapid photopolymerization, contain the thio(meth)acrylates CH₂:C(R₁)COSCH₂CH₂SCH₂CH₂SCOC(R₂):CH₂ (I) and, optionally, CH₂:C(R₁)COSC₆H₄SC₆H₄SCOC(R₂):CH₂ (R₁, R₂ = H, Me) 10-70, ethoxylated bisphenol A di(meth)acrylates 10-60, aromatic or polycyclic (meth)acrylates 5-30, polyoxyalkylene di(meth)acrylates 0-15, and polythiols 0-10%. A mixture of I (R₁, R₂ = Me) 35, ethoxylated (d.p. 2.6) bisphenol A dimethacrylate 55, 2-[(tribromophenyl)oxy]ethyl acrylate 5, Ph methacrylate 5, Irgacure-184 0.05, and diphenyl(2,4,6-trimethylbenzoyl)phosphine 0.1 part was exposed to UV light (80 W/cm²) for 3 min on each side to give a sheet with transmission 91%, n_D 1.5910, Abbe number 43.5, d. 1.2713, and good surface appearance and temperature resistance.

IT 185138-88-9P

RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)

(monomers containing thio(meth)acrylates giving transparent polymers)

RN 185138-88-9 HCAPLUS

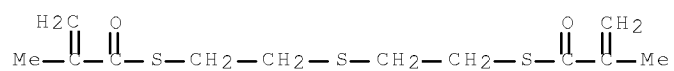
CN 2-Propenoic acid, 2-methyl-, phenyl ester, polymer with

α, α' -[(1-methylethylidene)di-4,1-phenylene]bis[ω -
[(2-methyl-1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl)],
S,S'-(thiodi-2,1-ethanediyl) bis(2-methyl-2-propenethioate) and
2-(tribromophenoxy)ethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 117651-91-9

CMF C12 H18 O2 S3



CM 2

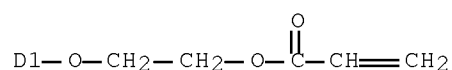
CRN 54363-46-1

CMF C11 H9 Br3 O3

CCI IDS



3 (D1—Br)

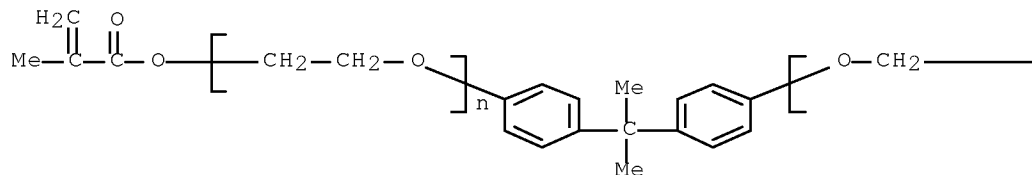


CM 3

CRN 41637-38-1

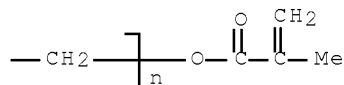
CMF (C2 H4 O)_n (C2 H4 O)_n C23 H24 O4

CCI PMS



PAGE 1-A

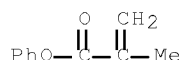
PAGE 1-B



CM 4

CRN 2177-70-0

CMF C10 H10 O2



IC ICM C08F228-02
 ICS G02B001-04
 CC 35-4 (Chemistry of Synthetic High Polymers)
 IT Polymerization
 (photopolymer.; photopolymer. of monomers
 containing thio(meth)acrylates giving transparent polymers)
 IT 185138-88-9P 185138-90-3P
 185138-93-6P 185138-95-8P 185138-97-0P
 185138-99-2P
 RL: IMF (Industrial manufacture); PRP (Properties); PREP
 (Preparation)
 (monomers containing thio(meth)acrylates giving transparent polymers)
 OS.CITING REF COUNT: 7 THERE ARE 7 CAPLUS RECORDS THAT CITE THIS
 RECORD (12 CITINGS)

=> d ibib abs fhitstr hitind 128 1-11

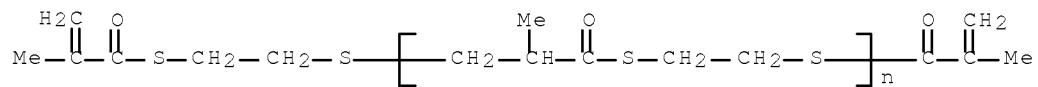
L28 ANSWER 1 OF 11 HCAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2003:117881 HCAPLUS Full-text
 DOCUMENT NUMBER: 138:154354
 TITLE: High-refractive-index optical resin compositions
 INVENTOR(S): Smith, Robert A.; Okoroafor, Michael O.; Herold,
 Robert D.; Freeman, T. Edwin
 PATENT ASSIGNEE(S): PPG Industries Ohio, Inc., USA
 SOURCE: PCT Int. Appl., 46 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2003011926	A1	20030213	WO 2001-US23394	200107 25

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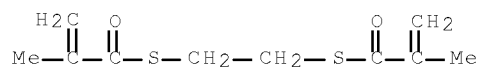
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 LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ,
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 TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN,
 TD, TG
 AU 2001278005 A1 20030217 AU 2001-278005
 200107
 25
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 EP 1412402 A1 20040428 EP 2001-955957
 200107
 25
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 JP 2004536934 T 20041209 JP 2003-517113
 200107
 25
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 PRIORITY APPLN. INFO.: WO 2001-US23394 W
 200107
 25
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 AB Polymerizable compns. comprise (a) a mixture of thio(meth)acrylate functional
 monomers comprising a first thio(meth)acrylate functional monomer, e.g.,
 bis(thiomethacrylate)-1,2-ethylene, and a second thio(meth)acrylate functional
 monomer, which is chain extended; (b) an aromatic monomer having ≥ 2 vinyl
 groups, e.g., divinylbenzene; (c) a polythiol monomer having ≥ 2 thiol groups,
 e.g., pentaerythritol tetrakis(3-mercaptopropionate); and (d) a comonomer
 selected from (i) an anhydride monomer having ≥ 1 unsatd. group, e.g.,
 methacrylic anhydride, (ii) a monomer having ≥ 3 (meth)acryloyl groups, e.g.,
 pentaerythritol tetrakis(acrylate), and (iii) mixts. thereof. Polymers of the
 polymerizable compns. have a refractive index of ≥ 1.57 and an Abbe number of
 ≥ 33 .
 IT 496042-19-4P
 RL: IMF (Industrial manufacture); PRP (Properties); PREP
 (Preparation)
 (high-refractive-index optical thio(meth)acrylate resin compns.)
 RN 496042-19-4 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, anhydride, polymer with
 2,2-bis[(3-mercapto-1-oxopropoxy)methyl]-1,3-propanediyl
 bis(3-mercaptopropionate), diethenylbenzene, S,S'-1,2-ethanediyl
 bis(2-methyl-2-propenethioate),
 α, α' -[(1-methylethylidene)di-4,1-phenylene]bis[ω -
 [(2-methyl-1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl)] and
 α -(2-methyl-1-oxo-2-propenyl)- ω -[[2-[(2-methyl-1-oxo-2-
 propenyl)thio]ethyl]thio]poly[thio-1,2-ethanediylthio(2-methyl-1-oxo-
 1,3-propanediyl)] (9CI) (CA INDEX NAME)
 CM 1
 CRN 393137-65-0
 CMF (C6 H10 O S2)n C10 H14 O2 S2
 CCI PMS



CM 2

CRN 117675-95-3

CMF C10 H14 O2 S2



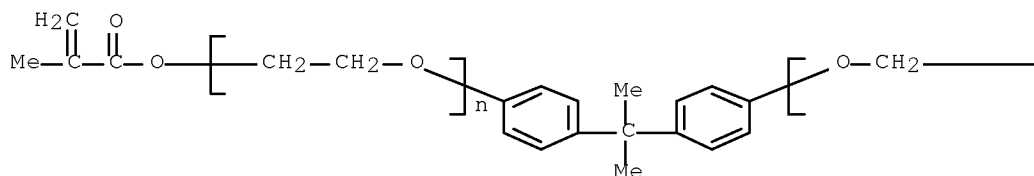
CM 3

CRN 41637-38-1

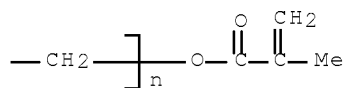
CMF (C2 H4 O)_n (C2 H4 O)_n C23 H24 O4

CCI PMS

PAGE 1-A



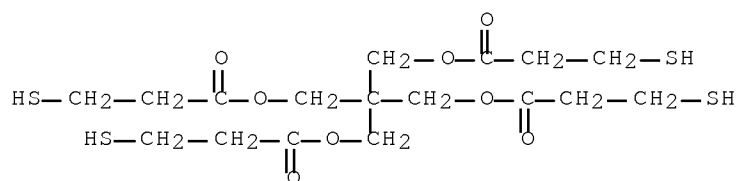
PAGE 1-B



CM 4

CRN 7575-23-7

CMF C17 H28 O8 S4

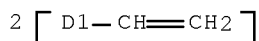


CM 5

CRN 1321-74-0

CMF C10 H10

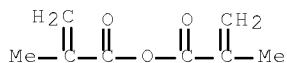
CCI IDS



CM 6

CRN 760-93-0

CMF C8 H10 O3



IC ICM C08F228-02

ICS C08F220-38; C08F212-34; C08F222-10; C08F222-04; G02B001-04

CC 37-3 (Plastics Manufacture and Processing)

Section cross-reference(s): 73

IT 494863-89-7P ~~496042-19-4P~~

RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)

(high-refractive-index optical thio(meth)acrylate resin compns.)

OS.CITING REF COUNT: 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD (5 CITINGS)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L28 ANSWER 2 OF 11 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2003:117880 HCAPLUS Full-text

DOCUMENT NUMBER: 138:154353

TITLE: High-refractive-index optical resin compositions

INVENTOR(S): Herold, Robert D.; Okoroafor, Michael O.; Smith, Robert A.; Graham, Marvin J.

PATENT ASSIGNEE(S): PPG Industries Ohio, Inc., USA

SOURCE: PCT Int. Appl., 49 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO. -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE
WO 2003011925	A1	20030213	WO 2001-US23396	200107 25
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AU 2001278007	A1	20030217	AU 2001-278007	200107 25
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EP 1409562	A1	20040421	EP 2001-955959	200107 25
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EP 1409562	B1	20060412		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2004536933	T	20041209	JP 2003-517112	200107 25
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PRIORITY APPLN. INFO.:			WO 2001-US23396	W 200107 25

AB Polymerizable compns. comprise (a) a mixture of thio(meth)acrylate functional monomers comprising a first thio(meth)acrylate functional monomer, e.g., bis(thiomethacrylate)-1,2-ethylene, and a second thio(meth)acrylate functional monomer, which is chain extended; and (b) a radically polymerizable comonomer having ≥ 2 (meth)acryloyl groups selected from, for example, (i) ethoxylated bisphenol A dimethacrylate, (ii) polyethylene glycol dimethacrylate, (iii) trimethylolpropane trimethacrylate, and (iv) mixts. thereof. Polymers of the polymerizable compns. have a refractive index of ≥ 1.57 and an Abbe number of ≥ 33 .

IT ~~496045-26-2P~~
 RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)
 (high-refractive-index optical thio(meth)acrylate resin compns.)

RN 496045-26-2 HCAPLUS

CN 2-Propenethioic acid, 2-methyl-, S,S'-1,2-ethanediyl ester, polymer with α, α' -[(1-methylethylidene)di-4,1-

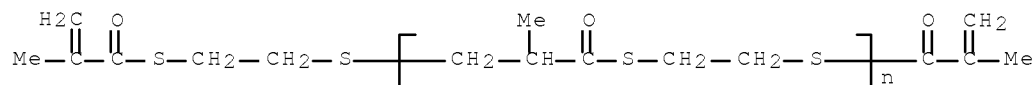
phenylene]bis[ω -(2-methyl-1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl)] and α -(2-methyl-1-oxo-2-propenyl)- ω -[[2-[(2-methyl-1-oxo-2-propenyl)thio]ethyl]thio]poly[thio-1,2-ethanediylthio(2-methyl-1-oxo-1,3-propanediyl)] (9CI) (CA INDEX NAME)

CM 1

CRN 393137-65-0

CMF (C6 H10 O S2)_n C10 H14 O2 S2

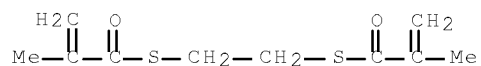
CCI PMS



CM 2

CRN 117675-95-3

CMF C10 H14 O2 S2

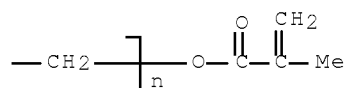
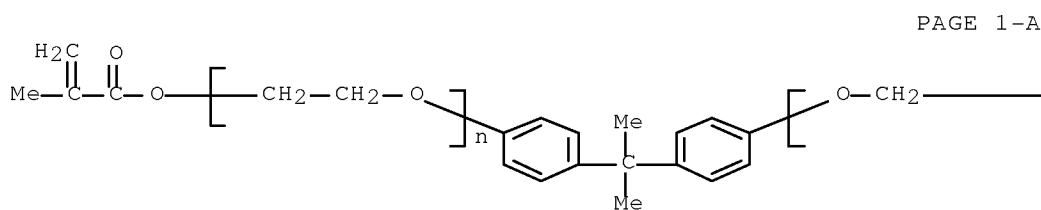


CM 3

CRN 41637-38-1

CMF (C2 H4 O)_n (C2 H4 O)_n C23 H24 O4

CCI PMS



IC ICM C08F220-38

ICS C08L033-14; G02B001-04
 CC 37-3 (Plastics Manufacture and Processing)
 Section cross-reference(s): 73
 IT ~~496045-26-2P~~ ~~496045-28-4P~~
 RL: IMF (Industrial manufacture); PRP (Properties); PREP
 (Preparation)
 (high-refractive-index optical thio(meth)acrylate resin compns.)
 OS.CITING REF COUNT: 6 THERE ARE 6 CAPLUS RECORDS THAT CITE THIS
 RECORD (6 CITINGS)
 REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR
 THIS RECORD. ALL CITATIONS AVAILABLE IN
 THE RE FORMAT

L28 ANSWER 3 OF 11 HCAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2002:185448 HCAPLUS Full-text
 DOCUMENT NUMBER: 136:254344
 TITLE: Synthetic resin lens and production method
 INVENTOR(S): Oshikiri, Tatsuya; Oyaizu, Yasushi; Uno, Kenji
 PATENT ASSIGNEE(S): Seed Co., Ltd., Japan
 SOURCE: PCT Int. Appl., 30 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO. -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE
WO 2002021165	A1	20020314	WO 2001-JP7641	200109 04
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W: US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
JP 2002082201	A	20020322	JP 2000-271994	200009 07
<--				
JP 2003029004	A	20030129	JP 2001-213994	200107 13
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JP 3739676	B2	20060125		
EP 1316820	A1	20030604	EP 2001-961345	200109 04
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EP 1316820	B1	20080116		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
AT 384275	T	20080215	AT 2001-961345	200109 04
<--				
US 20030130461	A1	20030710	US 2002-296796	200211 26
<--				

September 4, 2009

10/553,488

32

US 6699953
PRIORITY APPLN. INFO.:

B2 20040302

JP 2000-271994

A

200009
07

<--

JP 2001-213994

A

200107
13

<--

WO 2001-JP7641

W

200109
04

<--

AB The invention refers to a synthetic resin lens comprising a copolymer with 20 - 80 weight% bis-2-methacryloyl thioethyl sulfide, CH₂:C(CH₃)COSCH₂SCH₂CH₂SCOC(CH₃):CH₂, 5 - 50 weight% thiol with at least 2 functional groups, 0 - 75 weight% monomer(s) copolymerizable with these and preferably further contains 5 - 50 weight% bifunctional (meth)acrylic compound, with a refractive index of 1.58 or higher, an Abbe's number of 35 or higher, and a sp. gr. of 1.35 or lower.

IT 219983-41-2

RL: DEV (Device component use); USES (Uses)

(lens made of synthetic resin and process for producing same)

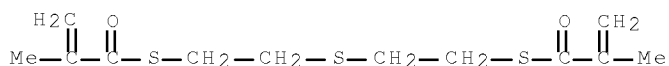
RN 219983-41-2 HCAPLUS

CN Propanoic acid, 3-mercapto-,
2,2-bis[(3-mercapto-1-oxopropoxy)methyl]-1,3-propanediyl ester,
polymer with α, α' -(1-methylethylidene)di-4,1-
phenylene]bis[ω -(2-methyl-1-oxo-2-propenyl)oxy]poly(oxy-1,2-
ethanediyl)] and S,S'-(thiodi-2,1-ethanediyl)
bis(2-methyl-2-propenethioate) (9CI) (CA INDEX NAME)

CM 1

CRN 117651-91-9

CMF C12 H18 O2 S3



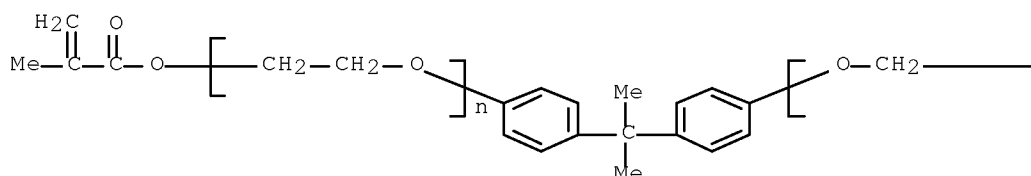
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CRN 41637-38-1

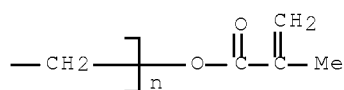
CMF (C2 H4 O)_n (C2 H4 O)_n C23 H24 O4

CCI PMS

PAGE 1-A



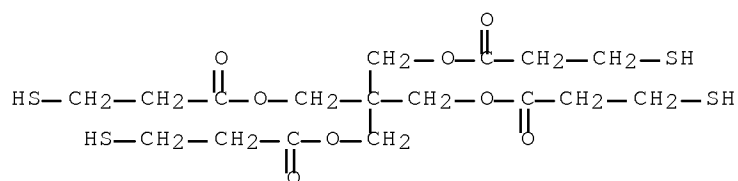
PAGE 1-B



CM 3

CRN 7575-23-7

CMF C17 H28 O8 S4



IC ICM G02B001-04

ICS G02C007-02; C08F020-38

CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

IT 219983-41-2 404013-05-4 404013-08-7 404013-10-1

404013-12-3 404013-14-5 404013-16-7

404013-18-9 404013-20-3 404013-22-5

404013-24-7

RL: DEV (Device component use); USES (Uses)

(lens made of synthetic resin and process for producing same)

REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

L28 ANSWER 4 OF 11 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2002:77473 HCAPLUS Full-text

DOCUMENT NUMBER: 136:135876

TITLE: Polymerizable thio(meth)acrylates for optical materials

INVENTOR(S): Hara, Tadashi; Mori, Yoshihiro

PATENT ASSIGNEE(S): Tokuyama Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 16 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2002030082	A	20020129	JP 2000-218548	

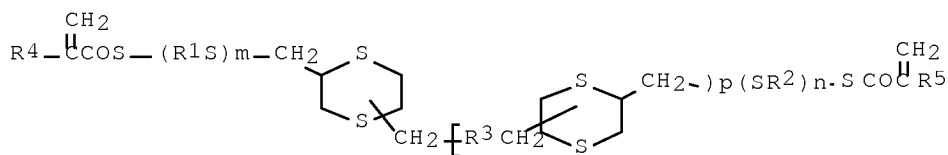
200007

19

PRIORITY APPLN. INFO.:

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JP 2000-218548200007
19OTHER SOURCE(S): MARPAT 136:135876
GI

<--



I

AB The compds. comprise I (R1, R2 = C2-4 alkylene, C6-12 arylene; R3 = S(R6S)q; R6 = C2-4 alkylene, C6-12 arylene, aromatic heterocyclyl, etc.; q = 0-4; R4, R5 = H, Me; p = 0-6; m, n = 0-6; if p = 0, then m, n ≠ 1, 2). Thus, a composition containing 2,5-bis[methacryloylthio-2-[2-[2-(ethylthio)ethylthio]ethylthio]methyl]-1,4-dithiane was molded to give a test piece showing refractive index 1.646.

IT 391859-57-7P

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polymerizable thio(meth)acrylates for optical materials)

RN 391859-57-7 HCAPLUS

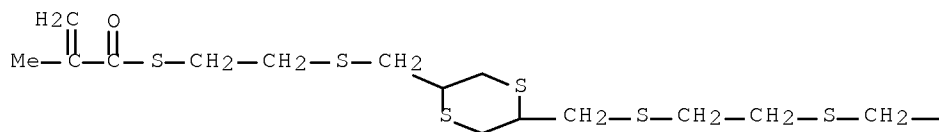
CN 2-Propenoic acid, 2-methyl-, oxiranylmethyl ester, polymer with S,S'-[1,2-ethanediy]bis(thiomethylene-1,4-dithiane-5,2-diylmethylenethio-2,1-ethanediy)] bis(2-methyl-2-propenethioate), ethenylbenzene and α,α'-[(1-methylethylidene)di-4,1-phenylene]bis[ω-[(2-methyl-1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediy)] (9CI) (CA INDEX NAME)

CM 1

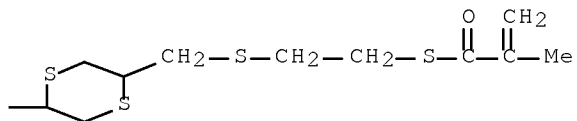
CRN 391859-36-2

CMF C26 H42 O2 S10

PAGE 1-A



PAGE 1-B



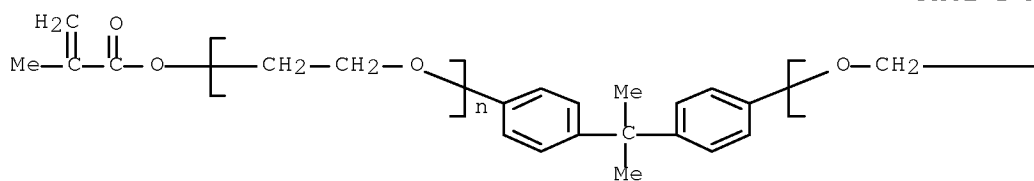
CM 2

CRN 41637-38-1

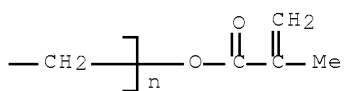
CMF (C2 H4 O)_n (C2 H4 O)_n C23 H24 O4

CCI PMS

PAGE 1-A



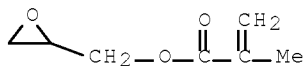
PAGE 1-B



CM 3

CRN 106-91-2

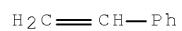
CMF C7 H10 O3



CM 4

CRN 100-42-5

CMF C8 H8



IC ICM C07D339-08
 ICS C08F020-38; C08F290-06; G02B001-04; G02C007-02
 CC 38-3 (Plastics Fabrication and Uses)
 Section cross-reference(s): 28, 35, 73
 IT 391859-49-7P 391859-50-0P 391859-51-1P 391859-52-2P
 391859-53-3P 391859-54-4P 391859-55-5P 391859-56-6P
~~391859-57-7P~~ 391859-58-8P 391859-59-9P 391859-60-2P
 391859-61-3P 391859-62-4P 391859-63-5P 391859-64-6P
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical
 or engineered material use); PREP (Preparation); USES (Uses)
 (polymerizable thio(meth)acrylates for optical materials)

L28 ANSWER 5 OF 11 HCAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 1999:64845 HCAPLUS Full-text
 DOCUMENT NUMBER: 130:139782
 TITLE: Polymerizable compositions and optical lenses
 with high refractive index obtained from the
 compositions
 INVENTOR(S): Jiang, Peiqi; Menduni, Gilbert; Widawski, Gilles
 PATENT ASSIGNEE(S): Essilor International Compagnie Generale
 d'Optique, Japan
 SOURCE: PCT Int. Appl., 29 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: French
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

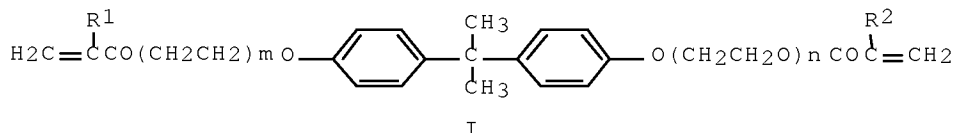
PATENT NO. -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE
WO 9902575	A1	19990121	WO 1998-FR1429	199807 03
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W: AU, CA, JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
FR 2765879	A1	19990115	FR 1997-8903	199707 11
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FR 2765879	B1	20020607		
AU 9884462	A	19990208	AU 1998-84462	199807 03
<--				
EP 994907	A1	20000426	EP 1998-935095	199807 03
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EP 994907	B1	20020320		
R: DE, FR, GB, IT				
JP 2001509522	T	20010724	JP 2000-502091	199807 03
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JP 4187404	B2	20081126		
US 6635730	B1	20031021	US 2000-481734	200001

PRIORITY APPLN. INFO.:

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FR 1997-890311
A
199707
11<--
WO 1998-FR1429W
199807
03

<--

GI



AB The invention concerns polymerizable compns. and optical lenses with high refractive index obtained from the compns., characterized in that they comprise as constituents base copolymerizable monomers at least 85 weight % of the total weight of copolymerizable monomers present in the composition: of a mixture M, for 100 parts by weight of the mixture; of (A) 20-80 parts of one or several, preferably only one, non-aromatic compds. comprising two thio(meth)acrylate functions, and (B) 80-20 parts of a compound I in which R¹ and R² represent, independently of each other, H or CH₃ and m+n has a mean value from 0 to 20 inclusively; and 3-30 % by weight relative to the weight of mixture M of a polythiol; the composition containing less than 5% of other aromatic thio(meth)acrylate copolymerizable, cyclic or vinyl aromatic mono(meth)acrylate monomers. The invention is applicable to the manufacture of spectacle lenses.

IT 219983-39-8P

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polymerizable compns. and optical lenses with high refractive index obtained from the compns.)

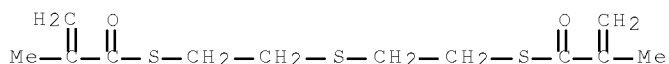
RN 219983-39-8 HCAPLUS

CN 2-Propenethioic acid, 2-methyl-, S,S'-(thiodi-2,1-ethanediyl) ester, polymer with 1,2-ethanediylbis(mercaptoacetate) and
α,α'-[(1-methylethylidene)di-4,1-phenylene]bis[ω-
[(2-methyl-1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl)] (9CI) (CA
INDEX NAME)

CM 1

CRN 117651-91-9

CMF C12 H18 O2 S3



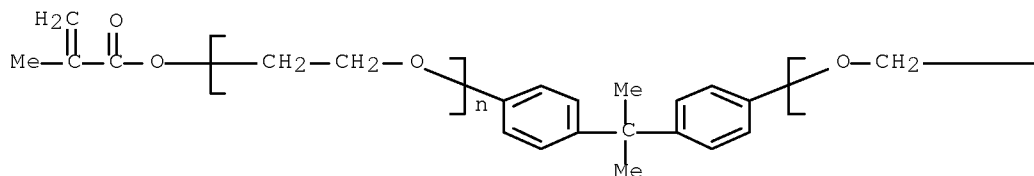
CM 2

CRN 41637-38-1

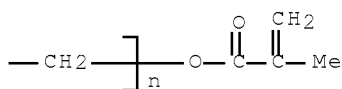
CMF (C2 H4 O)n (C2 H4 O)n C23 H24 O4

CCI PMS

PAGE 1-A



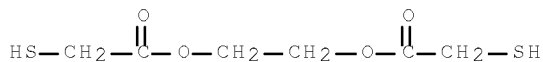
PAGE 1-B



CM 3

CRN 123-81-9

CMF C6 H10 O4 S2



IC ICM C08F222-10

ICS G02B001-04

CC 35-4 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 63

IT 219983-39-8F 219983-40-1F

219983-41-2F

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (polymerizable compns. and optical lenses with high refractive index obtained from the compns.)

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L28 ANSWER 6 OF 11 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1998:394321 HCAPLUS Full-text

DOCUMENT NUMBER: 129:68407

ORIGINAL REFERENCE NO.: 129:14199a,14202a

TITLE: Manufacture of acrylic thio monomers for crosslinkable compositions in production of

castings for ophthalmic lenses
 INVENTOR(S): Toh, Huan Kiak; Chen, Fang; Kok, Chong Meng
 PATENT ASSIGNEE(S): Sola International Holdings Ltd., Australia;
 Toh, Huan Kiak; Chen, Fang; Kok, Chong Meng
 SOURCE: PCT Int. Appl., 37 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
WO 9824761	A1	19980611	WO 1997-AU816	199712 03
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W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9851108	A	19980629	AU 1998-51108	199712 03
<--				
US 6172140	B1	20010109	US 1999-308931	199907 27
<--				
PRIORITY APPLN. INFO.:			AU 1996-3958	A 199612 03
<--				
			WO 1997-AU816	W 199712 03
<--				

AB A crosslinkable polymeric casting composition contained
 CH₂:CR₄COSMpCHR₁CHR₂MlpSCOCR₄:CH₂ [I; M, M₁ = O(CO)_m(CHR₃)_n or S(CO)_m(CHR₃)_n;
 R₁, R₂ = H, (substituted) C₁-10 alkyl, (substituted) C₁-10 alkoxy, or
 CHR₃SCOCR₄:CH₂; R₃, R₄ = H, (substituted) C₁-10 alkyl, or (substituted) C₁-10
 alkoxy; m, p = 0 or 1; n = 0-3] and optionally another polymerizable monomer.
 This casting composition produces moldings with high n and rigidity, very low
 d., and good mech. properties and color for lenses. A typical I was
 manufactured by esterification of 4-mercaptomethyl-3,6-dithia-1,8-
 octanedithiol with methacrylic anhydride in Me tert-Bu ether-aqueous NaOH
 mixture in the presence of BHT.

IT 209068-37-1P
 RL: DEV (Device component use); IMF (Industrial manufacture); PRP
 (Properties); PREP (Preparation); USES (Uses)
 (manufacture of acrylic thio monomers for crosslinkable compns. in
 production of castings for ophthalmic lenses)

RN 209068-37-1 HCAPLUS

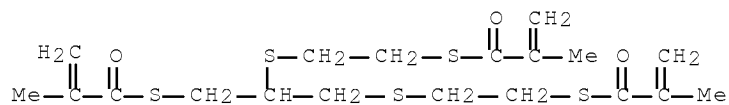
CN 11,14-Dioxa-2,9-diazaheptadec-16-enoic acid,

16-methyl-10,15-dioxo-12-[[[(1-oxo-2-propenyl)oxy]methyl]-,
 1-[[[(2-methyl-1-oxo-2-propenyl)oxy]methyl]-2-[(1-oxo-2-
 propenyl)oxy]ethyl ester, polymer with
 α, α' -[(1-methylethylidene)di-4,1-phenylene]bis[ω -
 [(2-methyl-1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl)],
 S,S'-[[1-[[[(2-methyl-1-oxo-2-propenyl)thio]methyl]-1,2-
 ethanediyl]bis(thio-2,1-ethanediyl)] bis(2-methyl-2-propenethioate)
 and (octahydro-4,7-methano-1H-indene-5,?-diyl)bis(methylene)
 di-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 185814-24-8

CMF C19 H28 O3 S5



CM 2

CRN 91105-84-9

CMF C28 H40 N2 O12

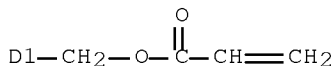
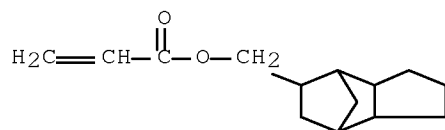
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CM 3

CRN 42594-17-2

CMF C18 H24 O4

CCI IDS



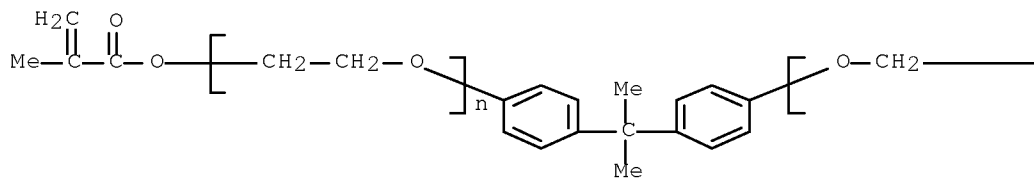
CM 4

CRN 41637-38-1

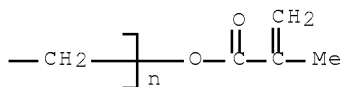
CMF (C2 H4 O)_n (C2 H4 O)_n C23 H24 O4

CCI PMS

PAGE 1-A



PAGE 1-B



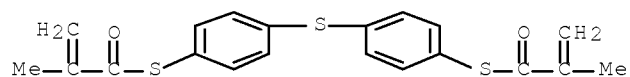
IC ICM C07C327-22
 ICS C07C327-28; C08F020-38; C08F022-24; C08F028-02; C08F120-38;
 C08F122-24; C08F220-38; C08F222-24; C08F228-02; G02B001-04
 CC 37-6 (Plastics Manufacture and Processing)
 Section cross-reference(s): 63
 IT 209068-35-9P 209068-36-0P 209068-37-1P
 209068-38-2P 209068-39-3P 209068-40-6P
 RL: DEV (Device component use); IMF (Industrial manufacture); PRP
 (Properties); PREP (Preparation); USES (Uses)
 (manufacture of acrylic thio monomers for crosslinkable compns. in
 production of castings for ophthalmic lenses)
 OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS
 RECORD (4 CITINGS)
 REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR
 THIS RECORD. ALL CITATIONS AVAILABLE IN
 THE RE FORMAT

L28 ANSWER 7 OF 11 HCAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 1997:41868 HCAPLUS Full-text
 DOCUMENT NUMBER: 126:60509
 ORIGINAL REFERENCE NO.: 126:11883a,11886a
 TITLE: Thio(meth)acrylate blends giving polymers having
 low yellowness index useful in ophthalmic lenses
 INVENTOR(S): Keita, Gabriel; Jiang, Peiqi
 PATENT ASSIGNEE(S): Essilor International (Compagnie Generale
 D'optique), Fr.
 SOURCE: Eur. Pat. Appl., 23 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: French
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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EP 745620	A1	19961204	EP 1996-401064	199605 15
EP 745620	B1	19971029		

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R: DE, ES, FR, GB, IT
 FR 2734827 A1 19961206 FR 1995-6442 19950531
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 FR 2734827 B1 19970711
 ES 2112666 T3 19980401 ES 1996-401064 19960515
 <--
 US 5741831 A 19980421 US 1996-652244 19960523
 <--
 JP 08325337 A 19961210 JP 1996-133390 19960528
 <--
 JP 3682117 B2 20050810
 AU 9654562 A 19961212 AU 1996-54562 19960529
 <--
 AU 704328 B2 19990422
 PRIORITY APPLN. INFO.: FR 1995-6442 A 19950531
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 AB The title monomer blends contain thio(meth)acrylates ≥ 10 , comonomers [preferably vinyl monomers or (met)acrylates] 0-90, and unsatd. alcs. (with non-aromatic unsatn.) 0.1-15%. A mixture of 4,4'-thiodibenzenethiol dimethacrylate 20, ethoxylated (d.p. 2.6) bisphenol A dimethacrylate 40, benzyl methacrylate 10, 2-[(tribromobenzyl)oxy]ethyl acrylate 10, polytetramethylene glycol dimethacrylate 20, and 3-methyl-2-buten-1-ol 2 parts containing 0.105% photoinitiators was polymerized by UV to give lenses which, after 2 h at 110°, had thickness 1.4 mm and yellowness index 2.98 and 2.85, resp., before and after thermal curing.
 IT 185214-67-9P
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (thio(meth)acrylate blends giving polymers having low yellowness index useful in ophthalmic lenses)
 RN 185214-67-9 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, phenylmethyl ester, polymer with 3-methyl-2-buten-1-ol, α, α' -[(1-methylethylidene)di-4,1-phenylene]bis[ω -[(2-methyl-1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl)], α -(2-methyl-1-oxo-2-propenyl)- ω -[(2-methyl-1-oxo-2-propenyl)oxy]poly(oxy-1,4-butanediyl), S,S'-(thiodi-4,1-phenylene) bis(2-methyl-2-propenethioate) and 2-(tribromophenoxy)ethyl 2-propenoate (9CI) (CA INDEX NAME)
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 CRN 129283-82-5
 CMF C20 H18 O2 S3



CM 2

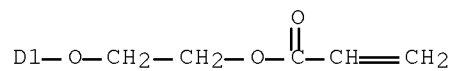
CRN 54363-46-1

CMF C11 H9 Br3 O3

CCI IDS



3 (D1-Br)

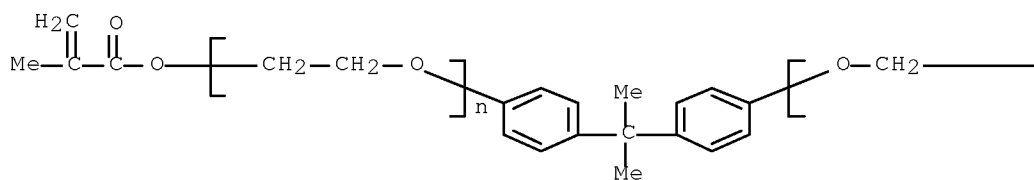


CM 3

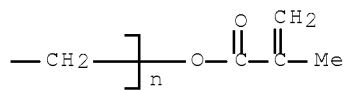
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CMF (C2 H4 O)n (C2 H4 O)n C23 H24 O4

CCI PMS



PAGE 1-A



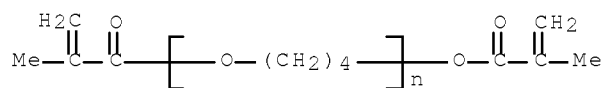
PAGE 1-B

CM 4

CRN 28883-57-0

CMF (C4 H8 O)n C8 H10 O3

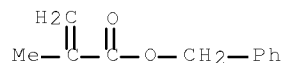
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CM 5

CRN 2495-37-6

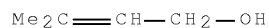
CMF C11 H12 O2



CM 6

CRN 556-82-1

CMF C5 H10 O



IC ICM C08F228-02

ICS G02B001-04

CC 35-4 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 63

IT ~~185214-67-9P~~ ~~185214-68-0P~~~~185214-69-1P~~ ~~185214-70-4P~~ ~~185214-71-5P~~~~185214-72-6P~~ ~~185214-73-7P~~ ~~185214-74-8P~~

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(thio(meth)acrylate blends giving polymers having low yellowness index useful in ophthalmic lenses)

OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)

L28 ANSWER 8 OF 11 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1996:410496 HCAPLUS Full-text

DOCUMENT NUMBER: 125:60521

ORIGINAL REFERENCE NO.: 125:11623a,11626a

TITLE: Actinic radiation-curable composition and lens sheet

INVENTOR(S): Fukushima, Hiroshi; Hamada, Masao; Oishi, Noriji; Konami, Yukichi

PATENT ASSIGNEE(S): Mitsubishi Rayon Co., Ltd., Japan

SOURCE: PCT Int. Appl., 36 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

September 4, 2009

10/553,488

45

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

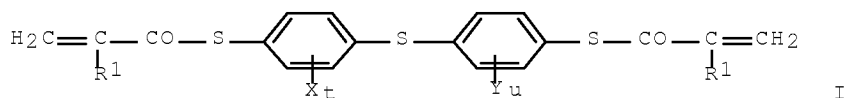
PATENT NO. ----- -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE
WO 9611964	A1	19960425	WO 1995-JP2128	199510 17
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RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
JP 08113614	A	19960507	JP 1994-277151	199410 18
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JP 08113616	A	19960507	JP 1994-277154	199410 18
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EP 735062	A1	19961002	EP 1995-934319	199510 17
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EP 735062	B1	20020130		
R: DE, FR, GB				
EP 952466	A2	19991027	EP 1999-113508	199510 17
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EP 952466	A3	20000503		
R: DE, FR, GB				
US 5969867	A	19991019	US 1996-652464	199606 14
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US 6206550	B1	20010327	US 1999-253695	199902 22
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			JP 1994-277154	A 199410 18
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			EP 1995-934319	A3 199510 17

<--
WO 1995-JP2128

W 199510
17

<--

GI



AB The composition contains (A) 20-80 parts I (R¹ = H, Me; X, Y = Me, Cl, Br, I; t, u = 0-2), (B) 20-80 parts ≥1 compound having ≥1 (meth)acryloyl group in its mol., or a mixture of (B-1) 10-90 parts ≥1 compound having ≥2 (meth)acryloyl groups in its mol., and (B-2) 1-90 parts mono-(meth)acrylate compound, and (C) 0.01-5 parts an actinic radiation-sensitive free radical polymerization initiator per 100 parts in total of the components A and B or the components A, B-1 and B-2. The lens sheet, which is useful in liquid crystal displaying devices and photog. applications, comprises a transparent substrate and, formed on at least either side thereof, a lens part prepared from the composition

IT 178436-10-7P

RL: DEV (Device component use); IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)

(actinic radiation-curable composition and lens sheet)

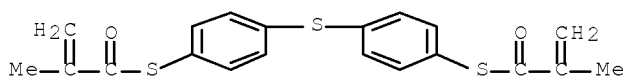
RN 178436-10-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-,
(1-methylethylidene)bis(4,1-phenyleneoxy-2,1-ethanediyl) ester,
polymer with 2-phenoxyethyl 2-propenoate and
S,S'-(thiodi-4,1-phenylene) bis(2-methyl-2-propenethioate) (9CI)
(CA INDEX NAME)

CM 1

CRN 129283-82-5

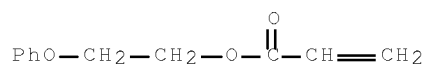
CMF C20 H18 O2 S3



CM 2

CRN 48145-04-6

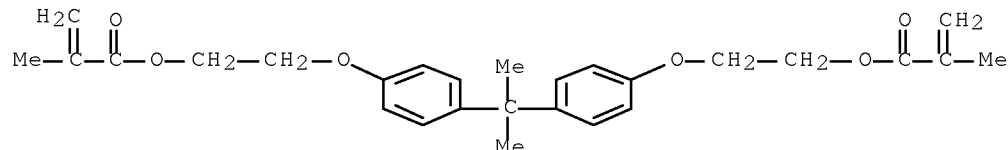
CMF C11 H12 O3



CM 3

CRN 24448-20-2

CMF C27 H32 O6



IC	ICM	C08F220-12
	ICS	C08F220-20; C08F220-38; C08F246-00; C08F290-06; G02B001-04; G02B003-00; G02B005-04; G02F001-1335

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 73, 75

IT	178436-10-7P	178436-11-8P	
	178436-12-9P	178436-13-0P	178436-14-1P
	178436-15-2P	178436-16-3P	

RL: DEV (Device component use); IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)

(actinic radiation-curable composition and lens sheet)

OS.CITING REF COUNT: 16 THERE ARE 16 CAPLUS RECORDS THAT CITE THIS
RECORD (29 CITINGS)

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN
THE RE FORMAT

L28 ANSWER 9 OF 11 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1995:462860 HCAPLUS Full-text

DOCUMENT NUMBER: 123:113944

ORIGINAL REFERENCE NO.: 123:20341a,20344a

TITLE: Acrylic moldings for eyeglass lenses

INVENTOR(S): Honda, Tomoji; Kaetsu, Isao

PATENT ASSIGNEE(S): Tokyo Keikaku Kk, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 07018041	A	19950120	JP 1993-183418	199306 30

JP 3418427

B2

20030623

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PRIORITY APPLN. INFO.:

JP 1993-183418

199306

30

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AB The title moldings with $n \geq 1.58$ and dyeability are obtained by radically casting polymerization of 4,4'-thiobisbenzenethiol dimethacrylate (I) 10-40, $\text{CH}_2:\text{CXC}(:\text{O})(\text{OCH}_2\text{CH}_2)_n\text{O}-1,4-\text{C}_6\text{H}_4\text{CMe}_2-1,4-\text{C}_6\text{H}_4\text{O}(\text{CH}_2\text{CH}_2\text{O})_n\text{C}(:\text{O})\text{CX}:\text{CH}_2$ (II; X = H, Me; $n = 3-6$) 10-30, and comonomers 30-80 parts. Thus, I 20, II (X = Me, average $n = 5$) 12, 2,2'-bis[4-[2-(2-methacryloyloxyethoxy)ethoxy]phenyl]propane 40, and α -methylstyrene 28 parts were mixed with 1.5 parts lauroyl peroxide and casting polymerized to give a test piece with light transmittance 90% and n 1.592.

IT ~~166440-67-1P~~

RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)

(casting-prepared acrylic polymers with good transparency and dyeability for eyeglass lenses)

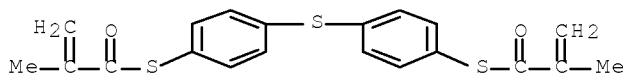
RN 166440-67-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-,
(1-methylethylidene)bis(4,1-phenyleneoxy-2,1-ethanediyl) ester, polymer with (1-methylethenyl)benzene,
 α, α' -[(1-methylethylidene)di-4,1-phenylene]bis[ω -
[(2-methyl-1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl)] and
S,S'-(thiodi-4,1-phenylene) bis(2-methyl-2-propenethioate) (9CI)
(CA INDEX NAME)

CM 1

CRN 129283-82-5

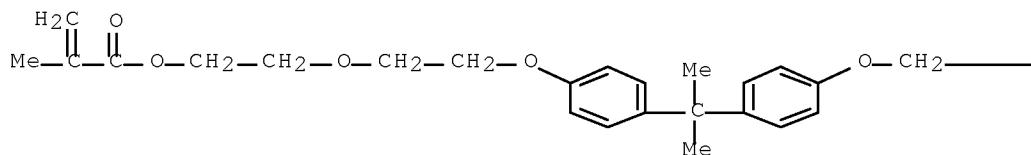
CMF C20 H18 O2 S3



CM 2

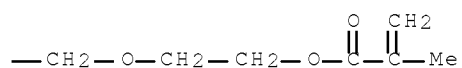
CRN 56744-60-6

CMF C31 H40 O8



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PAGE 1-B



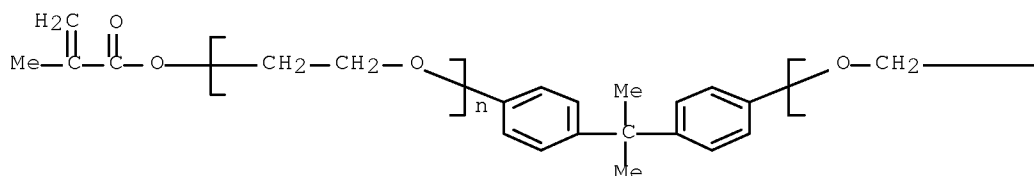
CM 3

CRN 41637-38-1

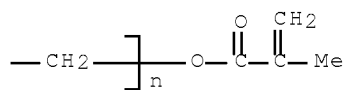
CMF (C2 H4 O)_n (C2 H4 O)_n C23 H24 O4

CCI PMS

PAGE 1-A



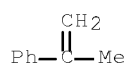
PAGE 1-B



CM 4

CRN 98-83-9

CMF C9 H10



IC ICM C08F299-02

ICS C08F220-30; C08F220-38; G02C007-02

CC 37-3 (Plastics Manufacture and Processing)

Section cross-reference(s): 35

IT 166440-67-1P 166440-68-2P

RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)

(casting-prepared acrylic polymers with good transparency and dyeability for eyeglass lenses)

L28 ANSWER 10 OF 11 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1994:702212 HCAPLUS Full-text

DOCUMENT NUMBER: 121:302212

ORIGINAL REFERENCE NO.: 121:55317a,55320a

TITLE: Crosslinkable fluorene di(meth)acrylate

INVENTOR(S): copolymers
 Kok, Chong Meng; Toh, Huan Kiak
 PATENT ASSIGNEE(S): Sola International Holdings, Ltd., Australia
 SOURCE: Eur. Pat. Appl., 14 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

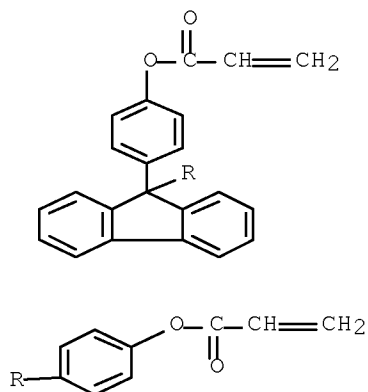
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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EP 598552	A2	19940525	EP 1993-308983	199311 10
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EP 598552	B1	19990602		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
CA 2102378	A1	19940517	CA 1993-2102378	199311 03
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AU 9350581	A	19940526	AU 1993-50581	199311 10
			<--	
AU 665124	B2	19951214		
JP 07002939	A	19950106	JP 1993-285156	199311 15
			<--	
JP 3170122	B2	20010528		
US 5502139	A	19960326	US 1995-426480	199504 20
			<--	
PRIORITY APPLN. INFO.:			AU 1992-5864	A 199211 16
			<--	
			US 1993-151820	A1 199311 15
			<--	
AB			The title polymers, useful for video disks, ophthalmic lenses, are prepared from fluorene di(meth)acrylate and a comonomer including a polymerizable double bond. Thus, a mixture of polyethylene glycol dimethacrylate 45, ethoxylated trimethylpropane triacrylate 35, urethane tetraacrylate 15, and bisphenolfluorene dihydroxyacrylate 5% was cured in a mold by UV radiation to give a plate.	
IT			159224-59-6	
			RL: USES (Uses)	
			(crosslinkable, for video disks and ophthalmic lenses)	
RN			159224-59-6 HCAPLUS	
CN			2-Propenoic acid, 9H-fluoren-9-ylidenedi-4,1-phenylene ester, polymer with α -hydro- ω -[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1), α, α' -[(1-methylethylidene)di-4,1-	

phenylene]bis[ω -(2-methyl-1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl)], α -(2-methyl-1-oxo-2-propenyl)- ω -(2-methyl-1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) and S,S'-(thiodi-4,1-phenylene) bis(2-methyl-2-propenethioate) (9CI) (CA INDEX NAME)

CM 1

CRN 159224-55-2

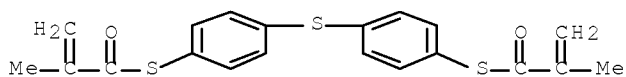
CMF C31 H22 O4



CM 2

CRN 129283-82-5

CMF C20 H18 O2 S3

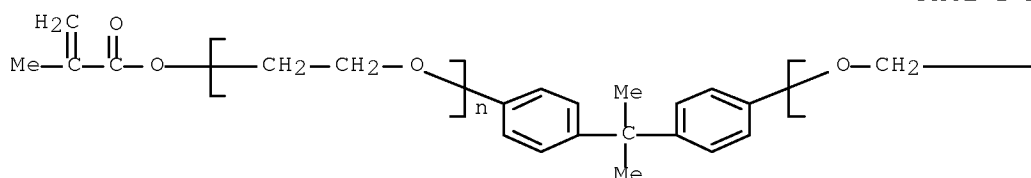


CM 3

CRN 41637-38-1

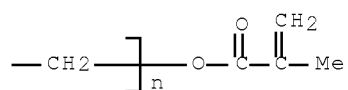
CMF (C2 H4 O)_n (C2 H4 O)_n C23 H24 O4

CCI PMS



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PAGE 1-B



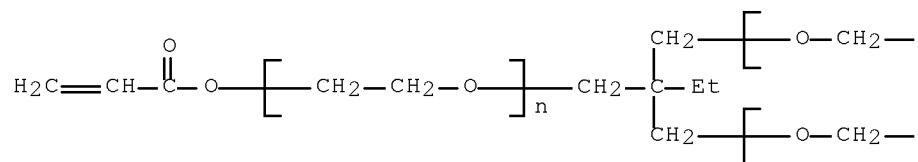
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CRN 28961-43-5

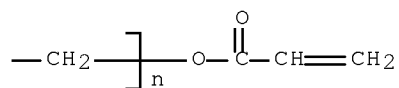
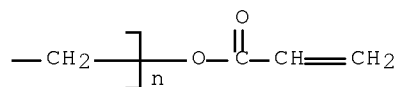
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CCI PMS

PAGE 1-A



PAGE 1-B

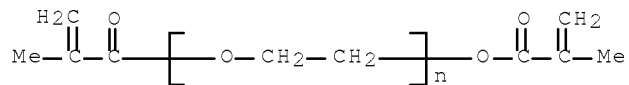


CM 5

CRN 25852-47-5

CMF (C2 H4 O)_n C8 H10 O3

CCI PMS



IC ICM G02B001-04

ICS C08F220-26; C08F220-20; C08G075-02

CC 37-3 (Plastics Manufacture and Processing)

Section cross-reference(s): 63, 73

IT 140714-78-9 159224-56-3 159224-57-4 159224-58-5
159224-59-6

RL: USES (Uses)

(crosslinkable, for video disks and ophthalmic lenses)

OS.CITING REF COUNT: 11 THERE ARE 11 CAPLUS RECORDS THAT CITE THIS
RECORD (17 CITINGS)

L28 ANSWER 11 OF 11 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1994:567079 HCAPLUS Full-text

DOCUMENT NUMBER: 121:167079

ORIGINAL REFERENCE NO.: 121:30097a,30100a

TITLE: Composition for optical materials

INVENTOR(S): Nakajima, Hiromitsu; Myazaki, Takeshi; Koinuma,
Yasuyoshi; Matsumoto, Takeo

PATENT ASSIGNEE(S): Nippon Oils & Fats Co Ltd, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 05303003	A	19931116	JP 1992-110010	199204 28

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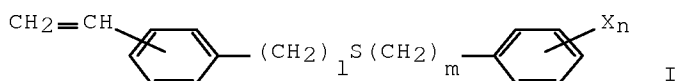
PRIORITY APPLN. INFO.: JP 1992-110010

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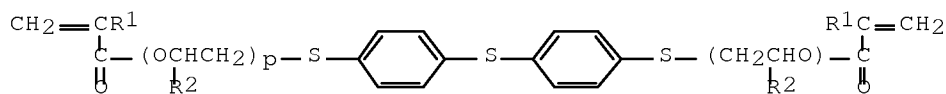
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OTHER SOURCE(S): MARPAT 121:167079

GI



I



II

AB The title composition contains the organic S compds. I and II [X = halo, Me; l = 1,2; m,n = 0,1; R1 and R2 = H, Me; p,q =0-5]. Optical materials of n ≥1.55 are obtained by polymerization hardening the above compns.

IT 157411-25-1

RL: USES (Uses)

(optical material, for lenses and other optical use)

RN 157411-25-1 HCAPLUS

CN 2-Propenethioic acid, 2-methyl-, S,S'-(thiodi-4,1-phenylene) ester,
polymer with chloro[(ethenylphenyl)methyl]thio]benzene and
α,α'-(1-methylethylidene)di-4,1-phenylene]bis[ω-

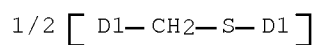
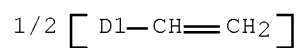
[(2-methyl-1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl)] (9CI) (CA
INDEX NAME)

CM 1

CRN 157411-24-0

CMF C15 H13 Cl S

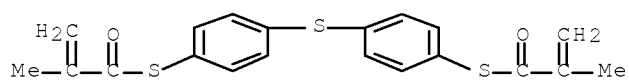
CCI IDS



CM 2

CRN 129283-82-5

CMF C20 H18 O2 S3

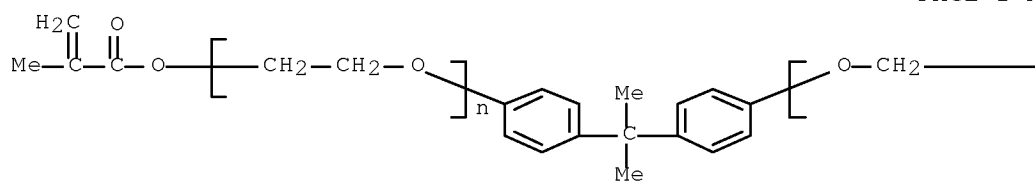


CM 3

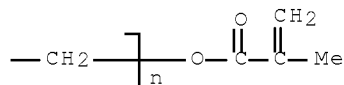
CRN 41637-38-1

CMF (C2 H4 O)_n (C2 H4 O)_n C23 H24 O4

CCI PMS



PAGE 1-A



IC ICM G02B001-04
 ICS C08F212-14; C08F220-38; C08F299-02
 CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and
 Other Reprographic Processes)
 Section cross-reference(s): 73
 IT 157411-25-1 157411-40-0 157411-41-1 157411-42-2
 157479-28-2 157479-29-3 157479-30-6 157479-31-7
 157479-32-8 157479-33-9 157479-34-0
 157479-35-1 157479-36-2
 RL: USES (Uses)
 (optical material, for lenses and other optical use)

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L30 ANSWER 1 OF 16 HCAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2004:876814 HCAPLUS Full-text
 DOCUMENT NUMBER: 141:357814
 TITLE: Polymer waveguides with excellent heat
 resistance and reduced optical anisotropy and
 optical loss and their manufacture
 INVENTOR(S): Kondo, Naoyuki; Doi, Naoko; Hayashi, Takao
 PATENT ASSIGNEE(S): Matsushita Electric Works, Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 27 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2004294720	A	20041021	JP 2003-86376	200303 26

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PRIORITY APPLN. INFO.: JP 2003-86376
 200303
 26

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AB The waveguides, useful for optical communication, are manufactured by applying
 core materials on clad substrates (having grooves corresponding to core
 patterns) under conditions where the substrates and/or materials are heated,
 wherein the substrates are made from aromatic group-containing thermoplastic
 resins and the materials contain ≥ 1 (meth)acrylates bearing radically
 polymerizable double bonds and diacrylates
 $\text{CH}_2\text{:CR}_1\text{C:O(OC}_2\text{H}_4\text{)nOQO(C}_2\text{H}_4\text{)mC:OCR}_1\text{:CH}_2$ (Q = divalent 9,9-diphenylfluorene; R1
 = H, Me; n, m = 1-10).
 IT 776303-33-4P 776303-35-6P
 RL: DEV (Device component use); IMF (Industrial manufacture); PREP
 (Preparation); USES (Uses)

(cardo, core; waveguides consisting of aromatic thermoplastic resin clads and fluorene-containing acrylic polymer cores with good heat resistance and reduced shrinkage, optical anisotropy, and optical loss)

RN 776303-33-4 HCAPLUS

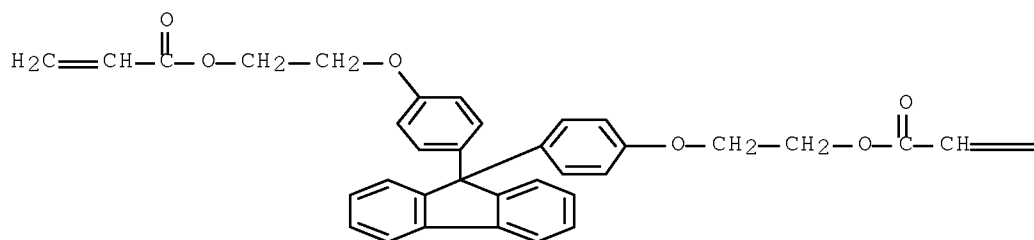
CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester, polymer with 9H-fluoren-9-ylidenebis(4,1-phenyleneoxy-2,1-ethanediyl) di-2-propenoate and S,S'-(thiodi-2,1-ethanediyl) bis(2-methyl-2-propenethioate) (9CI) (CA INDEX NAME)

CM 1

CRN 161182-73-6

CMF C35 H30 O6

PAGE 1-A



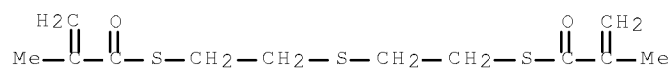
PAGE 1-B

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CM 2

CRN 117651-91-9

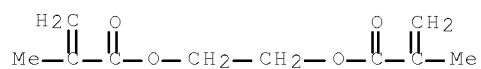
CMF C12 H18 O2 S3



CM 3

CRN 97-90-5

CMF C10 H14 O4



RN 776303-35-6 HCAPLUS

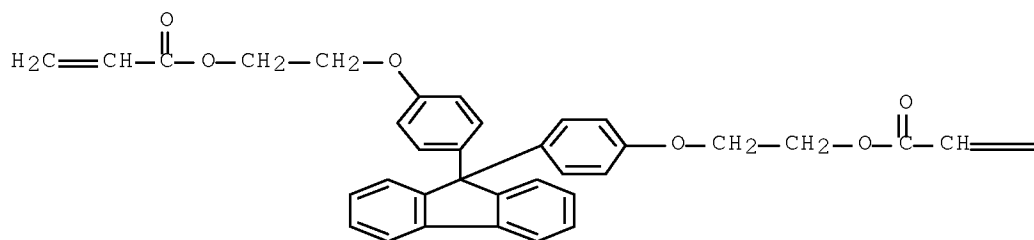
CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester, polymer with
9H-fluoren-9-ylidenebis(4,1-phenyleneoxy-2,1-ethanediyl)
di-2-propenoate and S-phenyl 2-methyl-2-propenethioate (9CI) (CA
INDEX NAME)

CM 1

CRN 161182-73-6

CMF C35 H30 O6

PAGE 1-A



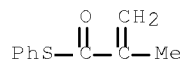
PAGE 1-B



CM 2

CRN 54667-28-6

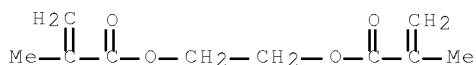
CMF C10 H10 O S



CM 3

CRN 97-90-5

CMF C10 H14 O4



IC ICM G02B006-13
ICS G02B006-12

CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)
Section cross-reference(s): 38

IT Polymerization catalysts
(photopolymer., for core; waveguides consisting of aromatic thermoplastic resin clads and fluorene-containing acrylic polymer cores with good heat resistance and reduced shrinkage, optical anisotropy, and optical loss)

IT 776303-30-1P 776303-31-2P 776303-32-3P 776303-33-4P
776303-35-6P 776307-42-7P 776307-43-8P
RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
(cardo, core; waveguides consisting of aromatic thermoplastic resin clads and fluorene-containing acrylic polymer cores with good heat resistance and reduced shrinkage, optical anisotropy, and optical loss)

IT 7473-98-5, 2-Hydroxy-2-methyl-1-phenylpropan-1-one 119313-12-1,
2-Benzyl-2-dimethylamino-1-(4-morpholinophenyl)butanone
RL: CAT (Catalyst use); USES (Uses)
(photopolymer. initiator for core; waveguides consisting of aromatic thermoplastic resin clads and fluorene-containing acrylic polymer cores with good heat resistance and reduced shrinkage, optical anisotropy, and optical loss)

L30 ANSWER 2 OF 16 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2004:101202 HCAPLUS Full-text
DOCUMENT NUMBER: 140:147010
TITLE: Photopolymerizable compositions and uses thereof
INVENTOR(S): Imai, Masao; Nakamura, Mitsuo; Naruse, Hiroshi; Kogo, Osamu; Enna, Masahiro; Otsuji, Atsuo
PATENT ASSIGNEE(S): Mitsui Chemicals, Inc., Japan
SOURCE: PCT Int. Appl., 40 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004011511	A1	20040205	WO 2003-JP9065	20030717

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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU 2003281687 A1 20040216 AU 2003-281687 200307
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JP 2004128468	A	20040422	JP 2003-198228	200307
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EP 1548039 A1 20050629 EP 2003-741440 <-- 200307
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EP 1548039	B1	20080813	
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CN 1671758	A	20050921	CN 2003-818271
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CN 1296399	C	20070124		
JP 4164493	B2	20081015	JP 2004-524112	

200307
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US 20060003261 A1 20060105 US 2005-522532 <--

200501

27

US 7307107 B2 20071211 <--
 PRIORITY APPLN. INFO.: JP 2002-219573 A
 200207
 29

JP 2003-119417 A

200304
24

WO 2003-JP9065 W 200307
17

AB Photopolymerizable compns., which can be polymerized in a short period of time and are useful for optical applications, comprise a photopolymer. initiator and a polymerizable compound component, characterized in that the polymerizable compound component includes (a) a bifunctional (meth)acrylic (thio)ester containing a sulfur atom in the mol. and (b) a bifunctional (meth)acrylic ester having a urethane linkage and/or a (meth)acrylate
H2C:C(R1)Y1OC6H3(R3)mX1C6H3(R4)nOY2COCR2:CH2 [R1, R2 = H, Me; R3, R4 = alkyl, aralkyl, aryl, halo; m, n = 0-2; X1 = Cl-3 alkylidene; and Y1, Y2 = polyoxyalkylene with the proviso that at least one of Y1 and Y2 is hydroxylated poly(oxyalkylene)].

IT 653577-57-2P 653577-63-0P
653577-64-1P 653577-67-4P 653577-71-0P

RL: IMF (Industrial manufacture); TEM (Technical or engineered

material use); PREP (Preparation); USES (Uses)

(manufacture of ~~photopolymerizable~~ compns. and uses thereof)

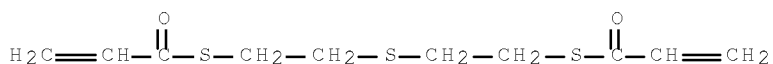
RN 653577-57-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-,
(1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)]
ester, polymer with S,S'-(thiodi-2,1-ethanediyl) di-2-propenethioate
(9CI) (CA INDEX NAME)

CM 1

CRN 119380-53-9

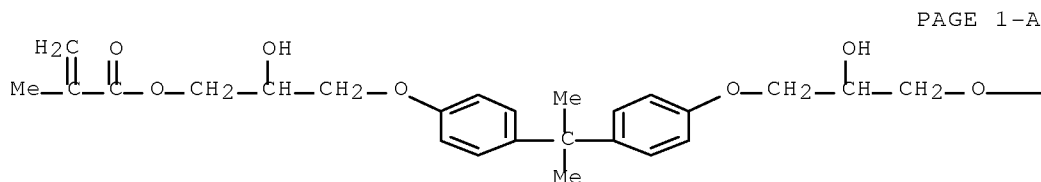
CMF C10 H14 O2 S3



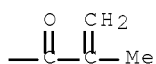
CM 2

CRN 1565-94-2

CMF C29 H36 O8



PAGE 1-B



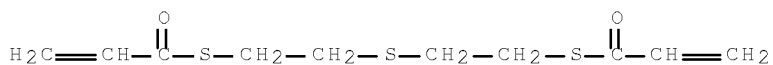
RN 653577-63-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-,
(1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)]
ester, polymer with S,S'-(thiodi-2,1-ethanediyl) di-2-propenethioate
and 2-[[[[[1,3,3-trimethyl-5-[[[1-methyl-2-[(2-methyl-1-oxo-2-
propenyl)oxy]ethoxy]carbonyl]amino]cyclohexyl]methyl]amino]carbonyl]
oxy]propyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 119380-53-9

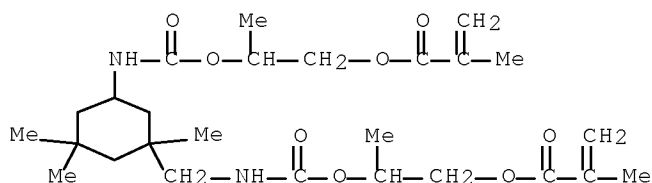
CMF C10 H14 O2 S3



CM 2

CRN 76701-94-5

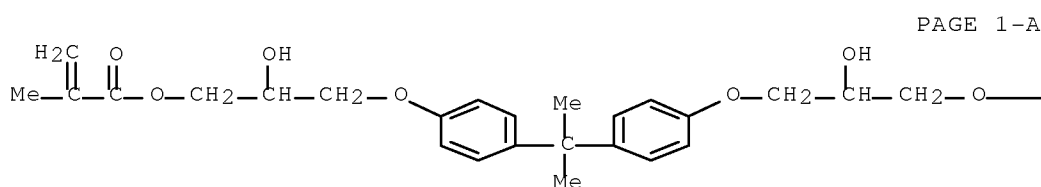
CMF C26 H42 N2 O8



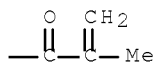
CM 3

CRN 1565-94-2

CMF C29 H36 O8



PAGE 1-A



PAGE 1-B

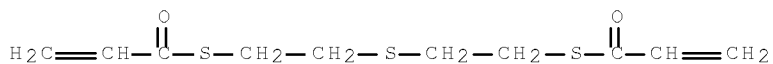
RN 653577-64-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-,
 (1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)]
 ester, polymer with 2,2'-thiobis[ethanethiol] and
 S,S'-(thiodi-2,1-ethanediyl) di-2-propenethioate (9CI) (CA INDEX
 NAME)

CM 1

CRN 119380-53-9

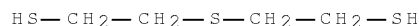
CMF C10 H14 O2 S3



CM 2

CRN 3570-55-6

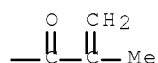
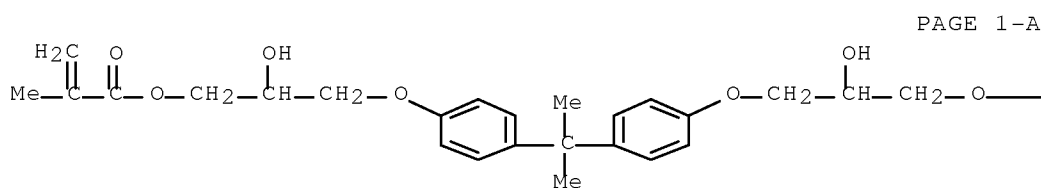
CMF C4 H10 S3



CM 3

CRN 1565-94-2

CMF C29 H36 O8



PAGE 1-B

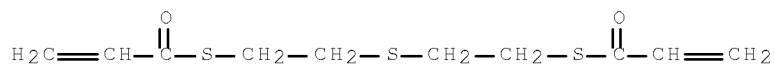
RN 653577-67-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-,
 (1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)]
 ester, polymer with 2,2'-thiobis[ethanethiol],
 S,S'-(thiodi-2,1-ethanediyl) di-2-propenethioate and
 2-[[[[[1,3,3-trimethyl-5-[[[1-methyl-2-[(2-methyl-1-oxo-2-
 propenyl)oxy]ethoxy]carbonyl]amino]cyclohexyl]methyl]amino]carbonyl]
 oxy]propyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 119380-53-9

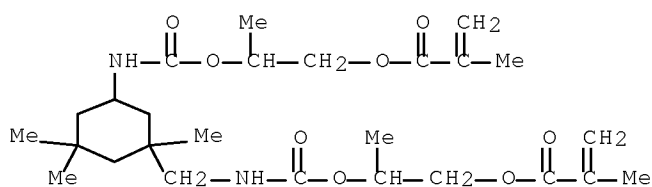
CMF C10 H14 O2 S3



CM 2

CRN 76701-94-5

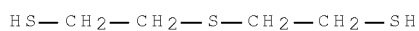
CMF C26 H42 N2 O8



CM 3

CRN 3570-55-6

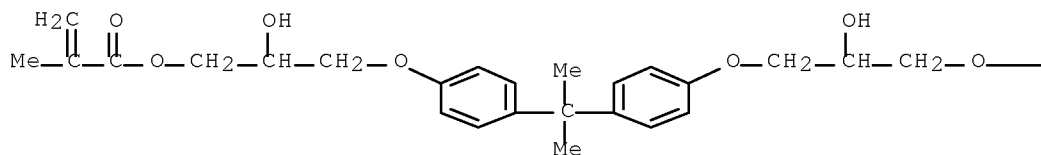
CMF C4 H10 S3



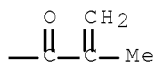
CM 4

CRN 1565-94-2

CMF C29 H36 O8



PAGE 1-A



PAGE 1-B

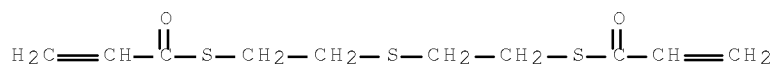
RN 653577-71-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-,
 (1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)]
 ester, polymer with oxybis(2,1-ethanediylloxy-2,1-ethanediyl)
 bis(2-methyl-2-propenoate) and S,S'-(thiodi-2,1-ethanediyl)
 di-2-propenethioate (9CI) (CA INDEX NAME)

CM 1

CRN 119380-53-9

CMF C10 H14 O2 S3

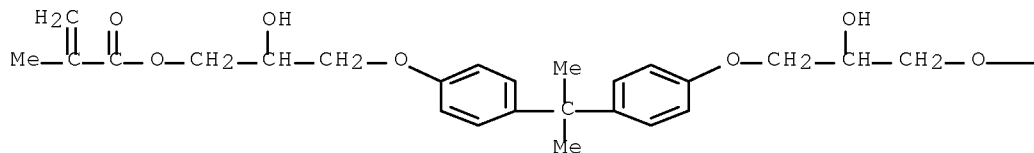


CM 2

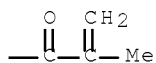
CRN 1565-94-2

CMF C29 H36 O8

PAGE 1-A



PAGE 1-B

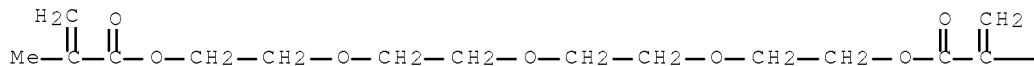


CM 3

CRN 109-17-1

CMF C16 H26 O7

PAGE 1-A



PAGE 1-B



IC ICM C08F220-30
 ICS C08F220-36; C08F220-38; G02B001-04; H01L023-29
 CC 37-3 (Plastics Manufacture and Processing)
 Section cross-reference(s): 38, 73, 76
 ST bifunctional methacrylic thioester photopolymerizable
 compn; methacrylic ester urethane bifunctional
 photopolymerizable compn
 IT Electroluminescent devices
 Lenses
 Transparent materials
 (manufacture of photopolymerizable compns. and uses thereof)

IT 76701-94-5P 119380-53-9P 155650-05-8P 653577-69-6P
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP
 (Preparation); RACT (Reactant or reagent)
 (manufacture of photopolymerizable compns. and uses thereof)

IT 653577-57-2P 653577-59-4P 653577-61-8P
 653577-63-0P 653577-64-1P 653577-66-3P
 653577-67-4P 653577-71-0P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered
 material use); PREP (Preparation); USES (Uses)
 (manufacture of photopolymerizable compns. and uses thereof)

IT 625-36-5, 3-Chloropropionic acid chloride 868-77-9, 2-Hydroxyethyl
 methacrylate 923-26-2, 2-Hydroxypropyl methacrylate 3570-55-6,
 Bis(2-mercaptoethyl) sulfide 3634-83-1, m-Xylylene diisocyanate
 4098-71-9, Isophorone diisocyanate
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (manufacture of photopolymerizable compns. and uses thereof)

IT 7473-98-5 75980-60-8, Diphenyl(2,4,6-trimethylbenzoyl)
 phosphineoxide
 RL: CAT (Catalyst use); USES (Uses)
 (photoinitiators; manufacture of photopolymerizable compns.
 and uses thereof)

OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS
 RECORD (5 CITINGS)

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE
 FOR THIS RECORD. ALL CITATIONS AVAILABLE
 IN THE RE FORMAT

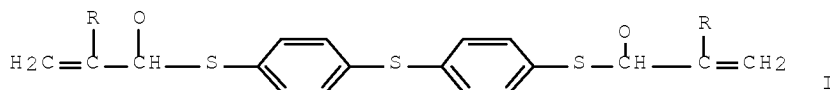
L30 ANSWER 3 OF 16 HCAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2003:902605 HCAPLUS Full-text
 DOCUMENT NUMBER: 139:401339
 TITLE: Lens and polymer composite material for lens
 INVENTOR(S): Chikaoka, Satoyuki; Takahashi, Toshiyuki
 PATENT ASSIGNEE(S): Asahi Denka Kogyo K. K., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
 CODEN: JKXXAF

DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
JP 2003329801	A	20031119	JP 2002-134978	200205 10

PRIORITY APPLN. INFO.: <-- JP 2002-134978 200205
 10

GI



AB The invention refers to a composite material containing a radical organic monomer I [R = H, methyl], a (meth)acrylate monomer containing 3 or more (meth)acryl groups, and a ~~photosensitive~~ radical polymerization initiator for lenses for high n and good scratch resistance.

IT 399510-23-7 625394-86-7 625394-87-8
625394-88-9 625394-89-0

RL: DEV (Device component use); USES (Uses)
(lens and polymercomposite material for lens)

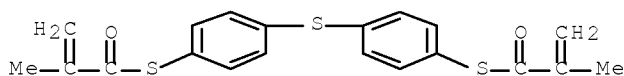
RN 399510-23-7 HCAPLUS

CN 2-Propenoic acid, 2-[[3-[(1-oxo-2-propenyl)oxy]-2,2-bis[[[(1-oxo-2-propenyl)oxy]methyl]propoxy]methyl]-2-[[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with S,S'-(thiodi-4,1-phenylene) bis(2-methyl-2-propenethioate) (9CI)
(CA INDEX NAME)

CM 1

CRN 129283-82-5

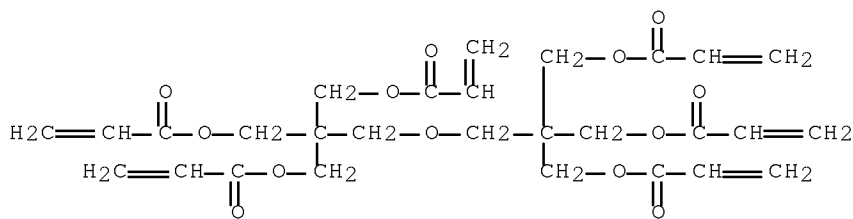
CMF C20 H18 O2 S3



CM 2

CRN 29570-58-9

CMF C28 H34 O13



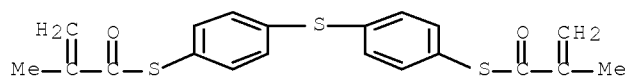
RN 625394-86-7 HCAPLUS

CN Hexanoic acid, 2,6-diisocyanato-, 2-isocyanatoethyl ester, polymer with 2-[[3-hydroxy-2,2-bis[[[(1-oxo-2-propenyl)oxy]methyl]propoxy]methyl]-2-[[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate and S,S'-(thiodi-4,1-phenylene) bis(2-methyl-2-propenethioate) (9CI)
(CA INDEX NAME)

CM 1

CRN 129283-82-5

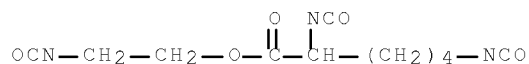
CMF C20 H18 O2 S3



CM 2

CRN 69878-18-8

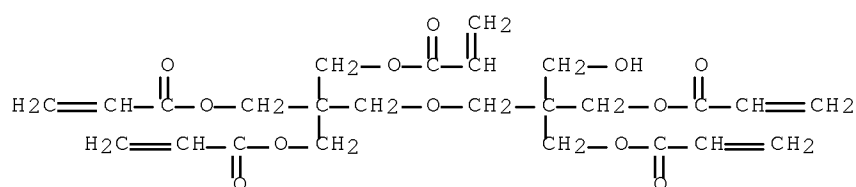
CMF C11 H13 N3 O5



CM 3

CRN 60506-81-2

CMF C25 H32 O12



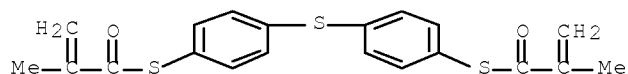
RN 625394-87-8 HCAPLUS

CN 7-Oxabicyclo[4.1.0]heptane-3-carboxylic acid,
 7-oxabicyclo[4.1.0]hept-3-ylmethyl ester, polymer with
 2-[[3-[(1-oxo-2-propenyl)oxy]-2,2-bis[[[(1-oxo-2-
 propenyl)oxy]methyl]propoxy]methyl]-2-[[[(1-oxo-2-
 propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate and
 S,S'-(thiodi-4,1-phenylene) bis(2-methyl-2-propenethioate) (9CI)
 (CA INDEX NAME)

CM 1

CRN 129283-82-5

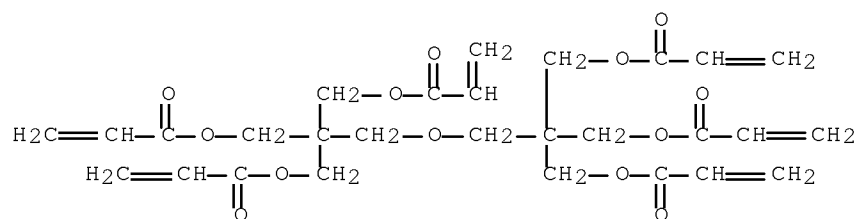
CMF C20 H18 O2 S3



CM 2

CRN 29570-58-9

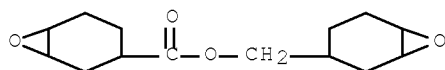
CMF C28 H34 O13



CM 3

CRN 2386-87-0

CMF C14 H20 O4



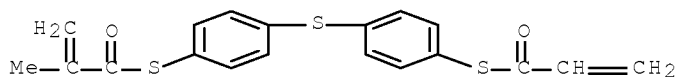
RN 625394-88-9 HCAPLUS

CN Hexanoic acid, 2,6-diisocyanato-, 2-isocyanatoethyl ester, polymer with 2-[[[3-hydroxy-2,2-bis[[[(1-oxo-2-propenyl)oxy]methyl]propoxy]methyl]-2-[[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate and S-[4-[[4-[(1-oxo-2-propenyl)thio]phenyl]thio]phenyl] 2-methyl-2-propenethioate (9CI) (CA INDEX NAME)

CM 1

CRN 625111-18-4

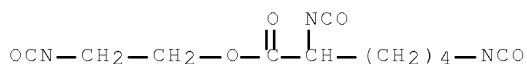
CMF C19 H16 O2 S3

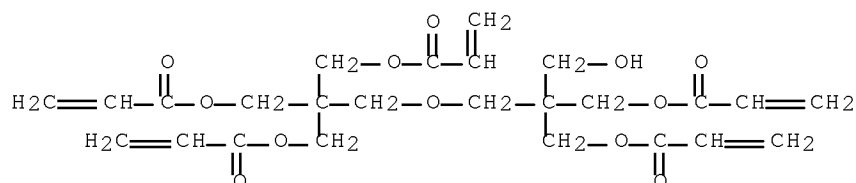


CM 2

CRN 69878-18-8

CMF C11 H13 N3 O5





IC ICM G02B001-04
 ICS C08F002-46; C08F220-38; C08F290-06
 CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)
 IT 399510-23-7 625394-86-7 625394-87-8
 625394-88-9 625394-89-0
 RL: DEV (Device component use); USES (Uses)
 (lens and polymercomposite material for lens)
 OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L30 ANSWER 4 OF 16 HCAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2003:818153 HCAPLUS Full-text
 DOCUMENT NUMBER: 139:324207
 TITLE: Enic compounds, sulfur-containing polyenic compound, sulfur-containing polythiol compound, high refractive index photocurable composition, and cured product
 INVENTOR(S): Ishii, Kenji; Okazaki, Hitoshi; Kondo, Mitsuteru; Takasuka, Masaaki; Takeuchi, Motoharu
 PATENT ASSIGNEE(S): Mitsubishi Gas Chemical Company, Ltd., Japan
 SOURCE: U.S. Pat. Appl. Publ., 43 pp.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20030195270	A1	20031016	US 2003-359271	20030206
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US 6872333	B2	20050329		
JP 2003226718	A	20030812	JP 2002-30616	20020207
			<--	
JP 4126918	B2	20080730		
JP 2004137421	A	20040513	JP 2002-305532	20021021
			<--	
JP 4235795	B2	20090311		
JP 2004182686	A	20040702	JP 2002-354195	20021205
			<--	

September 4, 2009

10/553,488

71

JP 4321055
US 20050154073

B2 20090826
A1 20050714

US 2004-997

200412
02

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US 7026372
PRIORITY APPLN. INFO.:

B2 20060411

JP 2002-30616

A

200202
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JP 2002-305532

A

200210
21

<--

JP 2002-354195

A

200212
05

<--

US 2003-359271

A3

200302
06

<--

AB A composition containing 3,3'-thiobis(propane-1,2-dithiol) or other polythiol and ≥ 1 enic compds. is photocurable and can give a cured product having a high refractive index and adequate hardness.

IT 570358-55-3F

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(photocurable thiobis(propanedithiol) compns. for cured products with high refractive index and moderate hardness)

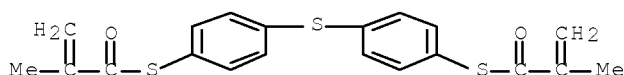
RN 570358-55-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-,
2-ethyl-2-[[[(2-methyl-1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with diethenylbenzene,
3,3'-thiobis[1,2-propanedithiol] and S,S'-(thiodi-4,1-phenylene) bis(2-methyl-2-propenethioate) (9CI) (CA INDEX NAME)

CM 1

CRN 129283-82-5

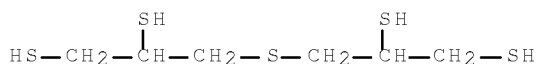
CMF C20 H18 O2 S3



CM 2

CRN 42450-84-0

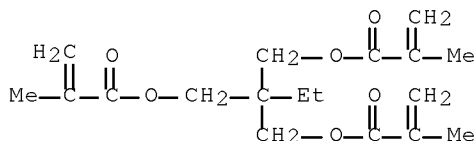
CMF C6 H14 S5



CM 3

CRN 3290-92-4

CMF C18 H26 O6

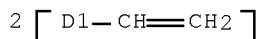


CM 4

CRN 1321-74-0

CMF C10 H10

CCI IDS



IC ICM C08K003-00

INCL 522071000

CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 38, 73

IT Optical materials

(photocurable thiobis(propanedithiol) compns. for cured products with high refractive index and moderate hardness)

IT Polythioethers

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(photocurable thiobis(propanedithiol) compns. for cured products with high refractive index and moderate hardness)

IT Polyurethanes, preparation

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(thio-; photocurable thiobis(propanedithiol) compns. for cured products with high refractive index and moderate hardness)

IT	570358-50-8P	570358-51-9P	570358-52-0P	570358-53-1P
	570358-54-2P	570358-55-3P	612849-03-3P	612849-04-4P
	612849-05-5P	612849-06-6P	612849-07-7P	612849-08-8P
	612849-09-9P	612849-10-2P	612849-16-8P	612849-17-9P
	612849-19-1P	612849-20-4P	612849-21-5P	612849-23-7P
	612849-25-9P	612849-27-1P	612849-29-3P	612849-31-7P
	612849-32-8P	612849-34-0P	612849-35-1P	612849-37-3P

612849-39-5P 612849-41-9P 612849-43-1P 612849-44-2P
612849-45-3P 612849-46-4P 612849-47-5P 612849-48-6P
612849-49-7P 612849-50-0P 612849-51-1P 612849-52-2P
612849-53-3P 612849-54-4P 612849-55-5P 612849-56-6P
612849-57-7P 612849-58-8P 612849-59-9P 612849-60-2P
612849-61-3P 612849-62-4P 612849-63-5P 612849-64-6P
612849-65-7P 612849-66-8P 612849-67-9P 612849-68-0P
612849-69-1P 612849-70-4P 612849-71-5P 612849-72-6P
612849-73-7P 612849-74-8P 612849-75-9P 612849-76-0P
612849-77-1P 613237-84-6P 613237-85-7P 613237-86-8P
613237-87-9P 613237-88-0P

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(~~photocurable~~ thiobis(propanedithiol) compns. for cured products with high refractive index and moderate hardness)

IT 42450-84-0P 570358-48-4P 570358-49-5P 612848-99-4P
612849-01-1P 612849-11-3P 612849-12-4P 612849-13-5P
612849-14-6P 613237-81-3P 613237-82-4P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(~~photocurable~~ thiobis(propanedithiol) compns. for cured products with high refractive index and moderate hardness)

IT 612849-00-0P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(reaction with acryloyl chloride; ~~photocurable~~ thiobis(propanedithiol) compns. for cured products with high refractive index and moderate hardness)

IT 108-98-5, Thiophenol, reactions 624-39-5, 1,4-Benzenedithiol
3570-55-6, 2,2'-Thiodiethanethiol 30499-56-0,
Mercaptomethylstyrene

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction with diepisulfide; ~~photocurable~~ thiobis(propanedithiol) compns. for cured products with high refractive index and moderate hardness)

IT 106-54-7, 4-Chlorothiophenol 814-68-6, Acryloyl chloride
30030-25-2 90802-17-8

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction with polythiol; ~~photocurable~~ thiobis(propanedithiol) compns. for cured products with high refractive index and moderate hardness)

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN
THE RE FORMAT

L30 ANSWER 5 OF 16 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2003:616076 HCAPLUS Full-text

DOCUMENT NUMBER: 139:150541

TITLE: ~~Photocurable~~ compositions with high refractive index and cured products thereof

INVENTOR(S): Ishii, Kenji; Okazaki, Hitoshi; Kondo, Mitsuteru

PATENT ASSIGNEE(S): Mitsubishi Gas Chemical Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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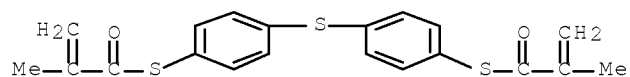
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JP 4126918         B2      20080730
US 20030195270     A1      20031016      US 2003-359271
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US 6872333         B2      20050329
US 20050154073     A1      20050714      US 2004-997
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US 7026372         B2      20060411
PRIORITY APPLN. INFO.:      JP 2002-30616      A
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                                           07
                                           <--
                                           JP 2002-305532      A
                                           200210
                                           21
                                           <--
                                           JP 2002-354195      A
                                           200212
                                           05
                                           <--
                                           US 2003-359271      A3
                                           200302
                                           06
                                           <--
AB  The compns., giving cured products with moderate hardness, useful for optical
    materials, comprise 3,3'-thiobis(propane-1,2-dithiol) (I), ≥1 ene compds., and
    ≥1 photoradical initiators. Thus, I 35, 3,3'-thiobis[1,2-di(1-
    propenylthio)propane] 65, and 2,2-dimethoxy-2-phenylacetophenone 1 part were
    blended, degassed, poured into a glass sheet-made mold, irradiated with UV,
    and released from the mold to give a cured product showing nD 1.658 and pencil
    hardness H.
IT  570358-55-3P
    RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical
    or engineered material use); PREP (Preparation); USES (Uses)
    (photocurable thiobis(propanedithiol) compns. for cured
    products with high refractive index and moderate hardness)
RN  570358-55-3  HCAPLUS
CN  2-Propenoic acid, 2-methyl-,
    2-ethyl-2-[[ (2-methyl-1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl
    ester, polymer with diethenylbenzene,
    3,3'-thiobis[1,2-propanedithiol] and S,S'-(thiodi-4,1-phenylene)
    bis(2-methyl-2-propenethioate) (9CI)  (CA INDEX NAME)

CM  1

CRN  129283-82-5
CMF  C20 H18 O2 S3

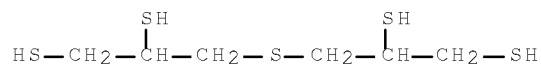
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CM 2

CRN 42450-84-0

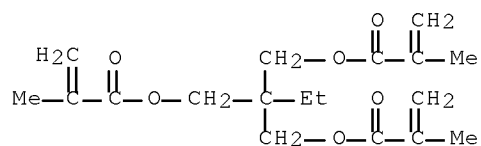
CMF C6 H14 S5



CM 3

CRN 3290-92-4

CMF C18 H26 O6

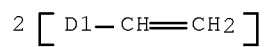


CM 4

CRN 1321-74-0

CMF C10 H10

CCI IDS



IC ICM C08F020-38

ICS C08F012-36; C08G075-04

CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 73

IT Optical materials

(~~photocurable~~ thiobis(propanedithiol) compns. for cured products with high refractive index and moderate hardness)

IT 570358-50-8P 570358-51-9P 570358-52-0P 570358-53-1P

570358-54-2P 570358-55-3P

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(photocurable thiobis(propanedithiol) compns. for cured products with high refractive index and moderate hardness)

IT 42450-84-0P 570358-48-4P 570358-49-5P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(photocurable thiobis(propanedithiol) compns. for cured products with high refractive index and moderate hardness)

L30 ANSWER 6 OF 16 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2003:424518 HCAPLUS Full-text

DOCUMENT NUMBER: 139:7852

TITLE: Dithiolane-containing curable (meth)acrylate compositions, cured products, and optical materials therefrom

INVENTOR(S): Imai, Masao; Nakamura, Mitsuo; Fujiyama, Takahiro; Ootsuji, Atsuo

PATENT ASSIGNEE(S): Mitsui Chemicals Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

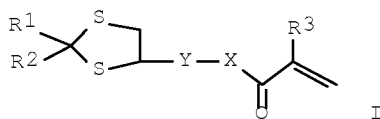
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2003160619	A	20030603	JP 2001-359902	20011126
			<--	
JP 3859497	B2	20061220		
PRIORITY APPLN. INFO.:			JP 2001-359902	20011126
			<--	

GI



AB The compns. comprise I [R1, R2 = H, (substituted) alkyl, aralkyl, aryl; R3 = H, alkyl; X = O, S; with the proviso that when X = O, R1 = (substituted) aryl; Y = difunctional organic group], OH-bearing (meth)acrylate esters, and polymerization initiators. Optical materials (e.g., lenses) from the compns. show high refractive index and good heat and mech. properties. Thus, a composition containing 4-acryloylthiomethyl-1,3-dithiolane and bisphenol A diglycidyl ether dimethacrylate was charged into a mold and photopolymerized to give a transparent lens showing refractive index 1.616, Abbe number 36.6, and high impact resistance.

IT 532547-09-4P 532547-16-3P

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical

or engineered material use); PREP (Preparation); USES (Uses)
(dithiolane-containing curable (meth)acrylate compns. for optical
lenses)

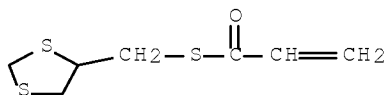
RN 532547-09-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-,
(1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)]
ester, polymer with S-(1,3-dithiolan-4-ylmethyl) 2-propenethioate
(9CI) (CA INDEX NAME)

CM 1

CRN 406922-31-4

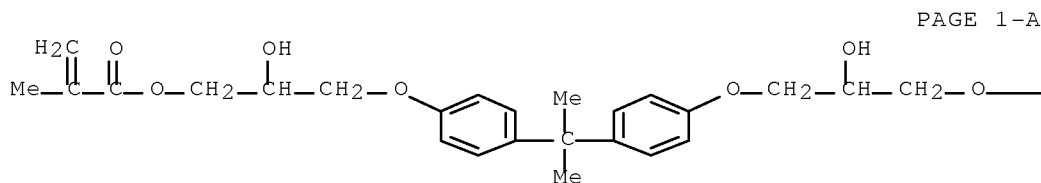
CMF C7 H10 O S3



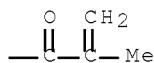
CM 2

CRN 1565-94-2

CMF C29 H36 O8



PAGE 1-A



PAGE 1-B

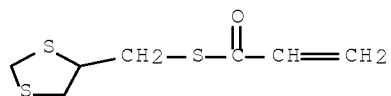
RN 532547-16-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-,
(1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)]
ester, polymer with S-(1,3-dithiolan-4-ylmethyl) 2-propenethioate
and α, α' -[(1-methylethylidene)di-4,1-
phenylene]bis[ω -(1-oxo-2-propenyl)oxy]poly(oxy-1,2-
ethanediyl)] (9CI) (CA INDEX NAME)

CM 1

CRN 406922-31-4

CMF C7 H10 O S3



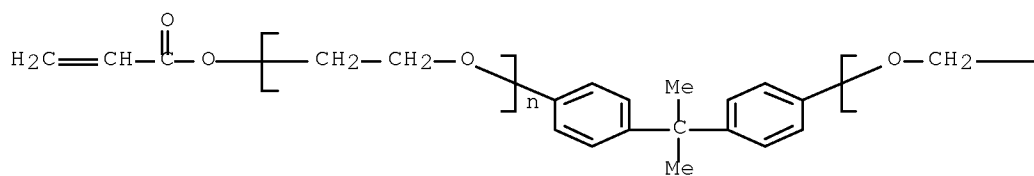
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CRN 64401-02-1

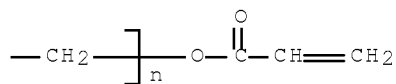
CMF (C2 H4 O)_n (C2 H4 O)_n C21 H20 O4

CCI PMS

PAGE 1-A



PAGE 1-B

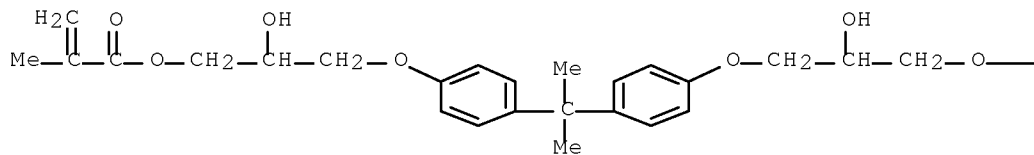


CM 3

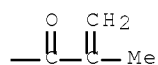
CRN 1565-94-2

CMF C29 H36 O8

PAGE 1-A



PAGE 1-B



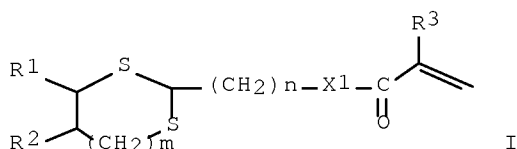
IC ICM C08F220-38
ICS C08F220-32; G02B001-04

CC 38-3 (Plastics Fabrication and Uses)
 Section cross-reference(s): 73
 IT ~~532547-09-4P~~ 532547-13-0P ~~532547-16-3P~~
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (dithiolane-containing curable (meth)acrylate compns. for optical lenses)

L30 ANSWER 7 OF 16 HCAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2003:424517 HCAPLUS Full-text
 DOCUMENT NUMBER: 139:7851
 TITLE: Cyclic dithioacetal group-containing curable (meth)acrylate compositions, cured products, and optical materials therefrom
 INVENTOR(S): Imai, Masao; Nakamura, Mitsuo; Fujiyama, Takahiro; Otsuji, Atsuo
 PATENT ASSIGNEE(S): Mitsui Chemicals Inc., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 17 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003160618	A	20030603	JP 2001-359901	20011126
				<--
PRIORITY APPLN. INFO.:				JP 2001-359901
				20011126
				<--

GI



AB The compns. comprise I (R1, R2 = H, alkyl; R1 and R2 may form ring; R3 = H, Me; X1 = O, S; m = 0-3; n = 1-4), OH-bearing (meth)acrylate esters, and polymerization initiators. Optical materials (e.g., lenses) from the compns. show high refractive index and good heat and mech. properties. Thus, a composition containing 2-acryloylthiomethyl-1,3-dithiolane and bisphenol A diglycidyl ether dimethacrylate was charged into a mold and photopolymerized to give a transparent lens showing refractive index 1.615, Abbe number 37.0, and high impact resistance.

IT ~~532547-09-4P~~ ~~532547-16-3P~~
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(cyclic dithioacetal group-containing curable (meth)acrylate compns.
for optical lenses)

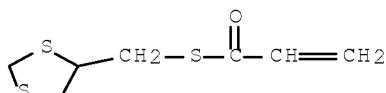
RN 532547-09-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-,
(1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)]
ester, polymer with S-(1,3-dithiolan-4-ylmethyl) 2-propenethioate
(9CI) (CA INDEX NAME)

CM 1

CRN 406922-31-4

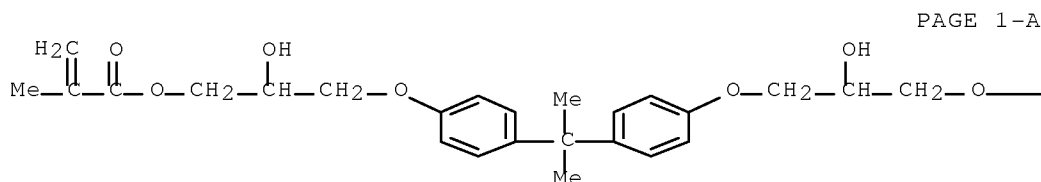
CMF C7 H10 O S3



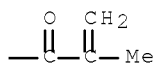
CM 2

CRN 1565-94-2

CMF C29 H36 O8



PAGE 1-A



PAGE 1-B

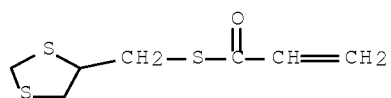
RN 532547-16-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-,
(1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)]
ester, polymer with S-(1,3-dithiolan-4-ylmethyl) 2-propenethioate
and α, α' -'[(1-methylethylidene)di-4,1-
phenylene]bis[ω -[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-
ethanediyl)] (9CI) (CA INDEX NAME)

CM 1

CRN 406922-31-4

CMF C7 H10 O S3



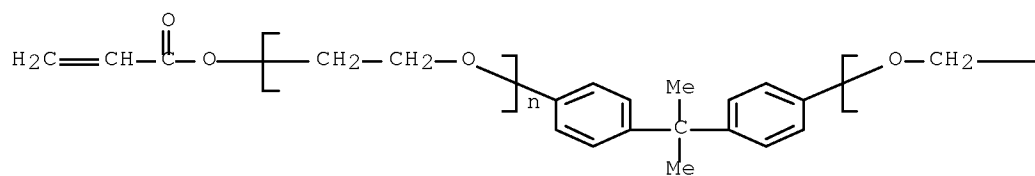
CM 2

CRN 64401-02-1

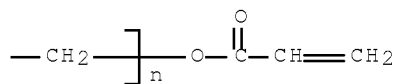
CMF (C2 H4 O)_n (C2 H4 O)_n C21 H20 O4

CCI PMS

PAGE 1-A



PAGE 1-B

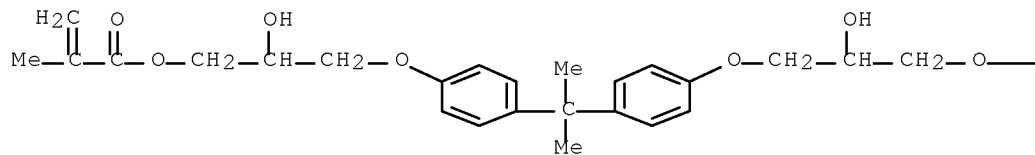


CM 3

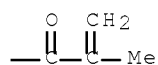
CRN 1565-94-2

CMF C29 H36 O8

PAGE 1-A



PAGE 1-B



IC ICM C08F220-38

ICS C08F220-28; C08J005-00; G02B001-04; C08L033-14

CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 73
IT ~~532547-09-4P~~ 532547-13-0P ~~532547-16-3P~~
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical
or engineered material use); PREP (Preparation); USES (Uses)
(cyclic dithioacetal group-containing curable (meth)acrylate compns.
for optical lenses)

L30 ANSWER 8 OF 16 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2003:396329 HCAPLUS Full-text
DOCUMENT NUMBER: 138:409434
TITLE: Hologram recording material composition and
hologram recording
INVENTOR(S): Ichihashi, Taichi; Tanigawa, Hideo; Kamada,
Yutaka; Nakamura, Shoukichi; Matsuo, Takashi;
Hashimoto, Akira; Sakashita, Takahiro; Yokoyama,
Kazunori
PATENT ASSIGNEE(S): Japan
SOURCE: U.S. Pat. Appl. Publ., 24 pp., Cont.-in-part of
U.S. Ser. No. 372,102, abandoned.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 20030096172	A1	20030522	US 2001-975560	200110 12
			<--	
PRIORITY APPLN. INFO.:			JP 1998-227818	A 199808 12
			<--	
			US 1999-372102	B2 199908 11

AB A hologram recording material composition is disclosed, comprising (A) an allyl-based prepolymer having at least one allyl group in a mol., (B) a (meth)acrylate-based compound having at least one polymerizable unsatd. group in a mol., and (C) a photopolymer initiator, wherein a difference between a refractive index of said allyl-based prepolymer (A) and a refractive index of a polymer of said (meth)acrylate compound (B) is 0.005 or more. The holog. recording layer of the invention suffers no drip or shift from the substrate when it is slanted, and it is thus easy to transport. The recording layer obtained from the hologram recording material composition of the invention is substantially in a solid state, it is excellent in handling as when touched with hand, it does not contaminate hand.

IT ~~529514-36-1P~~ 529514-37-2P
RL: SPN (Synthetic preparation); TEM (Technical or engineered
material use); PREP (Preparation); USES (Uses)
(hologram recording material composition and hologram recording)

RN 529514-36-1 HCAPLUS

CN 1,2-Benzenedicarboxylic acid, di-2-propenyl ester, polymer with
9-ethenyl-9H-carbazole, 9H-fluoren-9-ylidenebis[4,1-phenyleneoxy(2-
hydroxy-3,1-propanediyl)] di-2-propenoate,

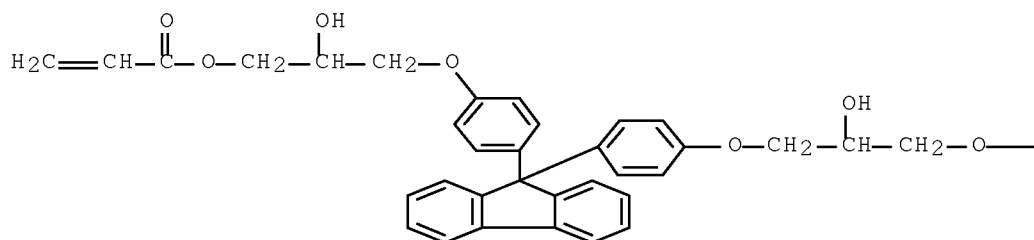
S,S'-(thiodi-4,1-phenylene) bis(2-methyl-2-propenethioate),
 2,4,6-tribromophenyl 2-methyl-2-propenoate and 2,4,6-tribromophenyl
 2-propenoate (9CI) (CA INDEX NAME)

CM 1

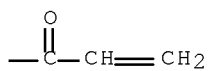
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CMF C37 H34 O8

PAGE 1-A



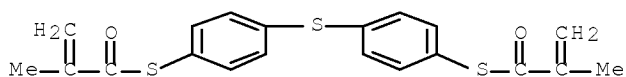
PAGE 1-B



CM 2

CRN 129283-82-5

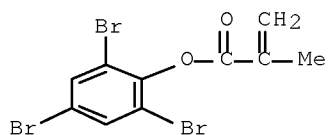
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CM 3

CRN 37721-71-4

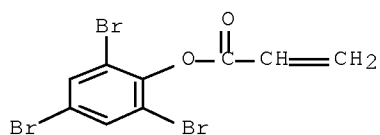
CMF C10 H7 Br3 O2



CM 4

CRN 3741-77-3

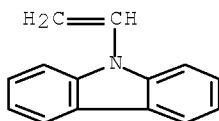
CMF C9 H5 Br3 O2



CM 5

CRN 1484-13-5

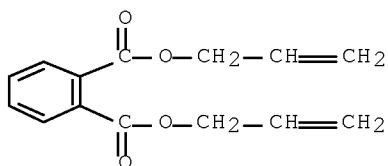
CMF C14 H11 N



CM 6

CRN 131-17-9

CMF C14 H14 O4



RN 529514-37-2 HCAPLUS

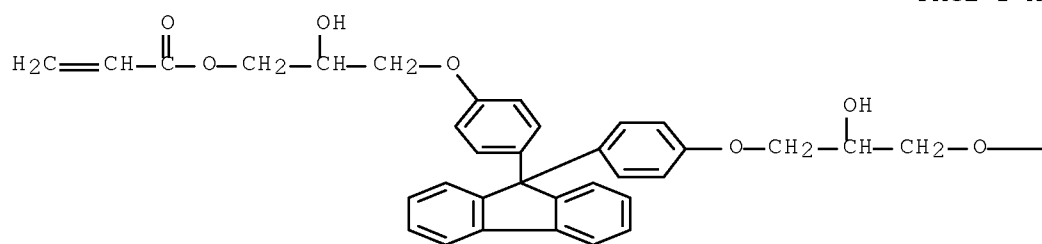
CN 1,2-Benzenedicarboxylic acid, di-2-propenyl ester, polymer with
 9H-fluoren-9-ylidenebis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)]
 di-2-propenoate, S,S'-(thiodi-4,1-phenylene)
 bis(2-methyl-2-propenethioate) and 2,4,6-tribromophenyl 2-propenoate
 (9CI) (CA INDEX NAME)

CM 1

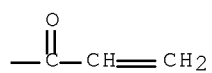
CRN 143182-97-2

CMF C37 H34 O8

PAGE 1-A



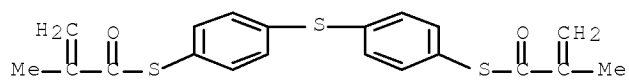
PAGE 1-B



CM 2

CRN 129283-82-5

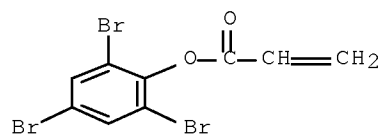
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CM 3

CRN 3741-77-3

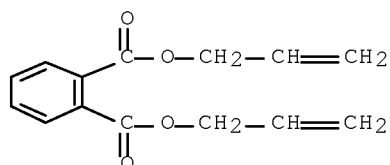
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CM 4

CRN 131-17-9

CMF C14 H14 O4



IC ICM G03H001-04
ICS G03C001-73
INCL 430001000; 430002000; 359003000; 430281100
CC 74-8 (Radiation Chemistry, Photochemistry, and Photographic and
Other Reprographic Processes)
Section cross-reference(s): 38
ST hologram recording material compn allyl acrylate polymer
photosensitive plate
IT Printing plates
(photosensitive; hologram recording material composition and
hologram recording)
IT 108-98-5DP, Thiophenol, reaction products with
diallylorthophthalate, polymer with diacrylate derivative 2223-82-7DP,
NK Ester A-NPG, polymers with diallylorthophthalate derivs.
2996-92-1DP, Phenyltrimethoxysilane, reaction products with
diallylorthophthalate, polymer with diacrylate derivative 7726-95-6DP,
Bromine, reaction products with diallylorthophthalate, polymer with
diacrylate derivative 25053-15-0DP, Daiso DAP A, reaction products
with phenyltrimethoxysilane, thiophenol and bromine; polymers with
diacrylate derivative 34937-44-5P 52285-12-8P 108891-12-9P
112785-75-8P 119845-81-7P 123415-31-6P 148140-87-8P
327040-71-1P 327040-73-3P 327040-74-4P 335159-45-0P
335159-46-1P 335159-47-2P 335159-48-3P 335159-49-4P
335159-50-7P 529514-28-1P 529514-29-2P 529514-30-5P
529514-31-6P 529514-32-7P 529514-33-8P 529514-34-9P
529514-35-0P ~~529514-36-1P~~ ~~529514-37-2P~~
RL: SPN (Synthetic preparation); TEM (Technical or engineered
material use); PREP (Preparation); USES (Uses)
(hologram recording material composition and hologram recording)

L30 ANSWER 9 OF 16 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2002:427824 HCAPLUS Full-text
DOCUMENT NUMBER: 137:26762
TITLE: ~~Photosensitive~~ ceramic compositions
for laminated substrates used as high-frequency
circuit, etc.
INVENTOR(S): Yamashiki, Tomoya; Masaki, Takaki; Oshita,
Hiroshi
PATENT ASSIGNEE(S): Toray Industries, Inc., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2002162735	A	20020607	JP 2000-362382	

200011
29

PRIORITY APPLN. INFO.:

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JP 2000-362382200011
29

AB The compns. comprise inorg. powder, inorg. fine particles having average particle size 0.003-0.08 μ m, and ~~photosensitive~~ organic components. The compns. are sinterable at lower temperature and provide via hole with high aspect ratio in high precision by photolithog.

IT 434318-26-0P, Bis(4-methacryloylthiophenyl)
sulfide-methacrylic acid-methyl methacrylate copolymer
434318-27-1P, Bis(4-methacryloylthiophenyl) sulfide-isobutyl
methacrylate-methacrylic acid copolymer
RL: PNU (Preparation, unclassified); TEM (Technical or engineered
material use); PREP (Preparation); USES (Uses)
(~~photosensitive~~ ceramic compns. containing inorg. powder,
size-controlled inorg. fine particles, and ~~photosensitive~~
organic components for fabrication of high-frequency circuit
substrates)

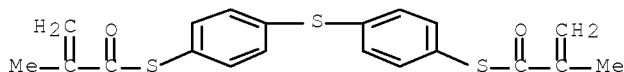
RN 434318-26-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with methyl
2-methyl-2-propenoate and S,S'-(thiodi-4,1-phenylene)
bis(2-methyl-2-propenethioate) (9CI) (CA INDEX NAME)

CM 1

CRN 129283-82-5

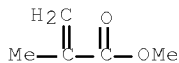
CMF C20 H18 O2 S3



CM 2

CRN 80-62-6

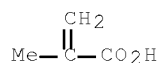
CMF C5 H8 O2



CM 3

CRN 79-41-4

CMF C4 H6 O2



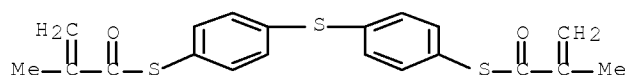
RN 434318-27-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 2-methylpropyl
2-methyl-2-propenoate and S,S'-(thiodi-4,1-phenylene)
bis(2-methyl-2-propenethioate) (9CI) (CA INDEX NAME)

CM 1

CRN 129283-82-5

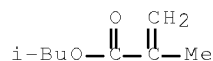
CMF C20 H18 O2 S3



CM 2

CRN 97-86-9

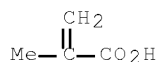
CMF C8 H14 O2



CM 3

CRN 79-41-4

CMF C4 H6 O2



IC ICM G03F007-004

ICS C08K003-00; C08L101-00; G03F007-40; H05K003-46

CC 76-2 (Electric Phenomena)

Section cross-reference(s): 57

ST ~~photosensitive~~ ceramic compn green sheet circuit board
substrate; inorg powder acrylic monomer compn high frequency circuit
board; silica fine particle ~~photosensitive~~ ceramic compn
photolithog

IT Spinel-group minerals

RL: TEM (Technical or engineered material use); USES (Uses)

(aluminum-magnesium; ~~photosensitive~~ ceramic compns.

containing inorg. powder, size-controlled inorg. fine particles, and

~~photosensitive~~ organic components for fabrication of

- high-frequency circuit substrates)
- IT Aluminoborosilicate glasses
RL: TEM (Technical or engineered material use); USES (Uses)
(barium calcium magnesium titanoaluminoborosilicate;
photosensitive ceramic compns. containing inorg. powder,
size-controlled inorg. fine particles, and photosensitive
organic components for fabrication of high-frequency circuit
substrates)
- IT Aluminoborosilicate glasses
RL: TEM (Technical or engineered material use); USES (Uses)
(magnesium zinc aluminoborosilicate; photosensitive
ceramic compns. containing inorg. powder, size-controlled inorg. fine
particles, and photosensitive organic components for
fabrication of high-frequency circuit substrates)
- IT Printed circuit boards
(multilayer; photosensitive ceramic compns. for
fabrication of high-frequency circuit substrates)
- IT Ceramics
(photosensitive ceramic compns. containing inorg. powder
and photosensitive organic components for fabrication of
high-frequency circuit substrates)
- IT Alkali metal oxides
Alkaline earth oxides
Glass powders
RL: TEM (Technical or engineered material use); USES (Uses)
(photosensitive ceramic compns. containing inorg. powder
and photosensitive organic components for fabrication of
high-frequency circuit substrates)
- IT Glass ceramics
(photosensitive ceramic compns. containing inorg. powder,
size-controlled inorg. fine particles, and photosensitive
organic components for fabrication of high-frequency circuit
substrates)
- IT 1303-86-2, Boria, uses 1304-28-5, Barium oxide, uses 1305-78-8,
Calcia, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(glass-ceramic or glass; photosensitive ceramic compns.
containing inorg. powder, size-controlled inorg. fine particles, and
photosensitive organic components for fabrication of
high-frequency circuit substrates)
- IT 404961-50-8P, Bis(2-hydroxy-3-methacryloyloxypropyl)isopropylamine-
Cyclomer P-ACA 250 copolymer 405081-93-8P,
Bis(2-hydroxy-3-methacryloyloxypropyl)isopropylamine-Cyclomer P-ACA
250-TN-1 copolymer
RL: IMF (Industrial manufacture); TEM (Technical or engineered
material use); PREP (Preparation); USES (Uses)
(photosensitive ceramic compns. containing inorg. powder,
size-controlled inorg. fine particles, and photosensitive
organic components for fabrication of high-frequency circuit
substrates)
- IT 1306-38-3, Ceria, uses 1309-48-4, Magnesia, uses 1314-23-4,
Zirconia, uses 1314-36-9, Yttria, uses 1344-28-1, Alumina, uses
7631-86-9, Silica, uses 13463-67-7, Titania, uses
RL: MOA (Modifier or additive use); TEM (Technical or engineered
material use); USES (Uses)
(photosensitive ceramic compns. containing inorg. powder,
size-controlled inorg. fine particles, and photosensitive
organic components for fabrication of high-frequency circuit
substrates)
- IT 434318-25-9P, Bis(2-hydroxy-3-methacryloyloxypropyl)isopropylamine-

methacrylic acid-methyl methacrylate copolymer
 434318-26-0P, Bis(4-methacryloylthiophenyl)
 sulfide-methacrylic acid-methyl methacrylate copolymer
 434318-27-1P, Bis(4-methacryloylthiophenyl) sulfide-isobutyl
 methacrylate-methacrylic acid copolymer 434322-61-9P, Methacrylic
 acid-methyl methacrylate-styrene copolymer ester with glycidyl
 methacrylate, polymer with bis(2-hydroxy-3-
 methacryloyloxypropyl)isopropylamine and TN-1 copolymer
 434322-62-0P, Methacrylic acid-methyl methacrylate-styrene copolymer
 ester with glycidyl methacrylate, polymer with
 bis(2-hydroxy-3-methacryloyloxypropyl)isopropylamine
 RL: PNU (Preparation, unclassified); TEM (Technical or engineered
 material use); PREP (Preparation); USES (Uses)
 (photosensitive ceramic compns. containing inorg. powder,
 size-controlled inorg. fine particles, and photosensitive
 organic components for fabrication of high-frequency circuit
 substrates)

IT 1302-88-1, Cordierite 14808-60-7, Quartz, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (photosensitive ceramic compns. containing inorg. powder,
 size-controlled inorg. fine particles, and photosensitive
 organic components for fabrication of high-frequency circuit
 substrates)

L30 ANSWER 10 OF 16 HCAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2002:384677 HCAPLUS Full-text
 DOCUMENT NUMBER: 136:394527
 TITLE: Photosensitive ceramic compositions
 for laminated substrates used as high-frequency
 circuit, etc.
 INVENTOR(S): Yamashiki, Tomoya; Masaki, Takaki; Oshita,
 Hiroshi
 PATENT ASSIGNEE(S): Toray Industries, Inc., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2002148786	A	20020522	JP 2001-260891	200108 30

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PRIORITY APPLN. INFO.: JP 2000-260464 A 200008
 30

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AB The compns. comprise inorg. powder and photosensitive organic components and
 satisfy the following requirements: (a) $N1 - N2 \leq 0.25$, where $N1$ = refractive
 index of a component having the maximum refractive index and $N2$ = refractive
 index of a component having the min. refractive index and (b) shrinkage rate
 after sintering is $\leq 5\%$ in the X-Y plane direction. Control of refractive
 index reduces reflection and scattering of light at interface of the
 components, thus enabling formation of via holes having high aspect ratio in
 high precision. Preferably compns. of the inorg. powder are also described.

IT 428441-97-8P, Bis(4-methacryloylthiophenyl)

sulfide-glycidyl methacrylate-methacrylic acid-methyl
methacrylate-styrene copolymer

RL: PNU (Preparation, unclassified); TEM (Technical or engineered
material use); PREP (Preparation); USES (Uses)

(~~photosensitive~~ ceramic compns. for fabrication of
high-frequency circuit substrates)

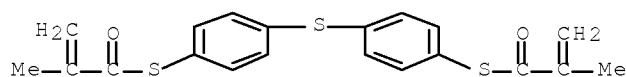
RN 428441-97-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with ethenylbenzene, methyl
2-methyl-2-propenoate, oxiranylmethyl 2-methyl-2-propenoate and
S,S'-(thiodi-4,1-phenylene) bis(2-methyl-2-propenethioate) (9CI)
(CA INDEX NAME)

CM 1

CRN 129283-82-5

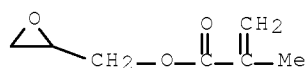
CMF C20 H18 O2 S3



CM 2

CRN 106-91-2

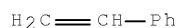
CMF C7 H10 O3



CM 3

CRN 100-42-5

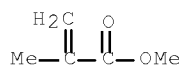
CMF C8 H8



CM 4

CRN 80-62-6

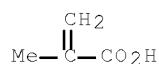
CMF C5 H8 O2



CM 5

CRN 79-41-4

CMF C4 H6 O2



- IC ICM G03F007-004
ICS C04B035-16; H05K003-46
- CC 76-14 (Electric Phenomena)
Section cross-reference(s): 57
- ST ~~photosensitive~~ ceramic compn green sheet circuit board
substrate; inorg powder acrylic monomer compn high frequency circuit board
- IT Aluminoborosilicate glasses
RL: TEM (Technical or engineered material use); USES (Uses)
(barium calcium magnesium titanoaluminoborosilicate;
~~photosensitive~~ ceramic compns. containing inorg. powder and
~~photosensitive~~ organic components for fabrication of
high-frequency circuit substrates)
- IT Aluminoborosilicate glasses
RL: TEM (Technical or engineered material use); USES (Uses)
(calcium aluminoborosilicate; ~~photosensitive~~ ceramic
compns. containing inorg. powder and ~~photosensitive~~ organic
components for fabrication of high-frequency circuit substrates)
- IT Aluminosilicate glasses
RL: TEM (Technical or engineered material use); USES (Uses)
(calcium magnesium aluminosilicate; ~~photosensitive~~
ceramic compns. containing inorg. powder and ~~photosensitive~~
organic components for fabrication of high-frequency circuit
substrates)
- IT Aluminoborosilicate glasses
Aluminoborosilicate glasses
RL: TEM (Technical or engineered material use); USES (Uses)
(magnesium zinc aluminoborosilicate; ~~photosensitive~~
ceramic compns. containing inorg. powder and ~~photosensitive~~
organic components for fabrication of high-frequency circuit
substrates)
- IT Printed circuit boards
(multilayer; ~~photosensitive~~ ceramic compns. for
fabrication of high-frequency circuit substrates)
- IT Alkali metal oxides
Glass powders
RL: TEM (Technical or engineered material use); USES (Uses)
(~~photosensitive~~ ceramic compns. containing inorg. powder
and ~~photosensitive~~ organic components for fabrication of
high-frequency circuit substrates)
- IT Ceramics
(~~photosensitive~~ ceramic compns. for fabrication of
high-frequency circuit substrates)
- IT 1302-50-7, Celsian 1302-54-1, Anorthite 1302-67-6, Spinel
1302-88-1, Cordierite 1302-93-8, Mullite 1304-56-9, Beryllia,
uses 15118-03-3, Forsterite 24304-00-5, Aluminum nitride
RL: TEM (Technical or engineered material use); USES (Uses)

(filler; ~~photosensitive~~ ceramic compns. containing inorg. powder and ~~photosensitive~~ organic components for fabrication of high-frequency circuit substrates)

IT 1303-86-2, Boria, uses 1305-78-8, Calcia, uses 1309-48-4, Magnesia, uses 1314-13-2, Zinc oxide, uses 1314-23-4, Zirconia, uses 1344-28-1, Alumina, uses 7631-86-9, Silica, uses 12007-67-9, Boron zinc oxide (B4ZnO7) 12008-25-2, Zinc borate oxide (Zn4(BO2)6O) 13597-65-4, Zinc silicate (Zn2SiO4) 14808-60-7, Quartz, uses

RL: TEM (Technical or engineered material use); USES (Uses) (~~photosensitive~~ ceramic compns. containing inorg. powder and ~~photosensitive~~ organic components for fabrication of high-frequency circuit substrates)

IT 405081-93-8P, Bis(2-hydroxy-3-methacryloyloxypropyl)isopropylamine-Cyclomer P-ACA 250-TN 1 copolymer

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (~~photosensitive~~ ceramic compns. for fabrication of high-frequency circuit substrates)

IT 404961-50-8P, Bis(2-hydroxy-3-methacryloyloxypropyl)isopropylamine-Cyclomer P-ACA 250 copolymer 428441-97-8P, Bis(4-methacryloylthiophenyl) sulfide-glycidyl methacrylate-methacrylic acid-methyl methacrylate-styrene copolymer

RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (~~photosensitive~~ ceramic compns. for fabrication of high-frequency circuit substrates)

OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

L30 ANSWER 11 OF 16 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2002:347803 HCAPLUS Full-text

DOCUMENT NUMBER: 136:356119

TITLE: Antireflective triacetylcellulose film and image display device made from the same

INVENTOR(S): Sotozono, Hirohisa; Nakamura, Kazuhiro

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.
CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2002131514	A	20020509	JP 2000-327219	20001026

PRIORITY APPLN. INFO.: JP 2000-327219

20001026

AB The film is prepared by coating a layer of an antireflective hard coat on a multilayered triacetylcellulose film, wherein the properties of the hard coat and fillers and fluorocompd. in the hard coat satisfy with several given conditions. Thus, a ~~photocurable~~ hard coat was made from DPHA in 50:50 MEK

and cyclohexanone mixture containing Irigacure 907, Kayacure DETX, and Mizukasil P 526.

IT 399510-23-7, DPHA-MPSMA copolymer

RL: DEV (Device component use); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(hard coat; antireflective triacetylcellulose film and image display device made from the same)

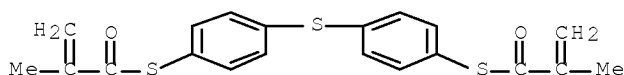
RN 399510-23-7 HCAPLUS

CN 2-Propenoic acid, 2-[[3-[(1-oxo-2-propenyl)oxy]-2,2-bis[[[(1-oxo-2-propenyl)oxy]methyl]propoxy]methyl]-2-[[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with S,S'-(thiodi-4,1-phenylene) bis(2-methyl-2-propenethioate) (9CI) (CA INDEX NAME)

CM 1

CRN 129283-82-5

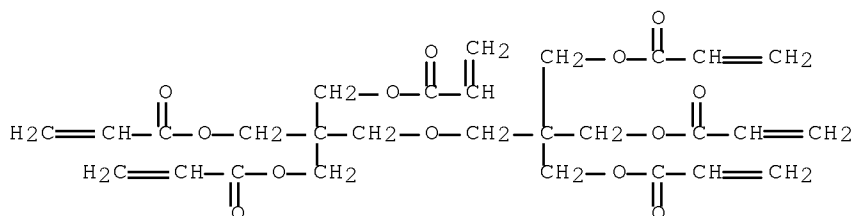
CMF C20 H18 O2 S3



CM 2

CRN 29570-58-9

CMF C28 H34 O13



IC ICM G02B005-02

ICS B32B023-00; G02B001-11; G02B005-30; G02F001-1335; G09F009-00; B05D005-02

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 74

ST image display device antireflective triacetylcellulose film; photocurable acrylate coating image display

IT Polymerization

(photopolymer; antireflective triacetylcellulose film and image display device made from the same)

IT 67653-78-5, Dipentaerythritol hexaacrylate homopolymer 370884-29-0, JSR-KZ 7991 399510-23-7, DPHA-MPSMA copolymer

RL: DEV (Device component use); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(hard coat; antireflective triacetylcellulose film and image

display device made from the same)

L30 ANSWER 12 OF 16 HCAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2002:345203 HCAPLUS Full-text
 DOCUMENT NUMBER: 136:348080
 TITLE: Anti-glare and anti-reflection film and
 polarizing plate
 INVENTOR(S): Obayashi, Tatsuhiko; Sotozono, Hirohisa
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2002131507	A	20020509	JP 2000-324152	200010 24

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PRIORITY APPLN. INFO.: JP 2000-324152

200010
24

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AB Title film comprises a high refractive index (1.57 - 2.50) layer with average particle diameter 1.0 - 10.0 μ m and a low refractive index (1.30 - 1.43) layer with ≥ 1 F-containing Si-compound prepared by a mixture of hydrolysis products and partial condensated compns. of (Rf1)aR1bSiXc or X3SiRf2SiX3, and R3aSiX4-a [Rf1 = F-containing C1-20 alkyl with ≥ 1 ether or ester bonds; Rf2 = ≥ 1 F-containing divalent linkage optionally with ether or ester bonds; R1 = C1-10 alkyl; X = alkoxy, halo, or R2CO2 (R2 = H or C1-10 alkyl); R3 = C1-20 alkyl; a + b + c = 4; a, c = 1 - 3; b = 0 - 2; d = 0 - 3]. The optical film shows haze 3.0 - 20.0%, and the average reflectivity at 450 - 650 nm is < 1.8%.

IT ~~399510-23-7~~, DPHA-MPSMA copolymer
 RL: DEV (Device component use); USES (Uses)
 (anti-glare and anti-reflection film and polarizing plate)

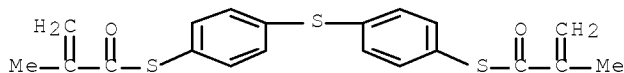
RN 399510-23-7 HCAPLUS

CN 2-Propenoic acid, 2-[[3-[(1-oxo-2-propenyl)oxy]-2,2-bis[[[(1-oxo-2-propenyl)oxy]methyl]propoxy]methyl]-2-[[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with S,S'-(thiodi-4,1-phenylene) bis(2-methyl-2-propenethioate) (9CI)
 (CA INDEX NAME)

CM 1

CRN 129283-82-5

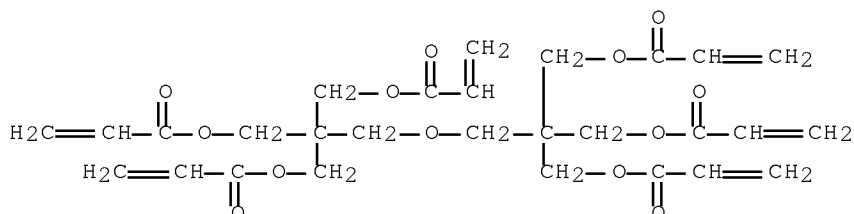
CMF C20 H18 O2 S3



CM 2

CRN 29570-58-9

CMF C28 H34 O13



IC ICM G02B001-11

ICS B32B007-02; B32B027-00; C09K003-00; G02B001-10; G02B005-02;
G02B005-30; G02F001-1335

CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

Section cross-reference(s): 42

IT 7631-86-9, Silica, uses 29570-58-9, DPHA 220524-99-2
355137-65-4, SX-200H 370884-29-0, JSR KZ-7991
399510-23-7, DPHA-MPSMA copolymer 404575-06-0
418253-06-2

RL: DEV (Device component use); USES (Uses)

(anti-glare and anti-reflection film and polarizing plate)

IT 82799-44-8, Kayacure DETX

RL: CAT (Catalyst use); USES (Uses)

(photosensitizer; anti-glare and anti-reflection film
and polarizing plate)OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS
RECORD (2 CITINGS)

L30 ANSWER 13 OF 16 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2002:244667 HCAPLUS Full-text

DOCUMENT NUMBER: 136:264280

TITLE: Sulfur-containing (meth)acrylic acid thioesters,
their compositions, cured products, and optical
materials

INVENTOR(S): Okuma, Tadashi; Imai, Masao; Ootsuji, Atsuo

PATENT ASSIGNEE(S): Mitsui Chemicals Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 56 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002097223	A	20020402	JP 2000-288319	200009 22

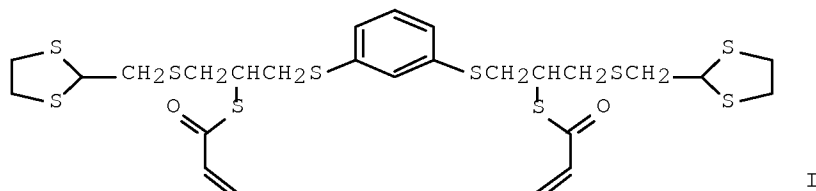
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PRIORITY APPLN. INFO.:

JP 2000-288319

200009
22

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OTHER SOURCE(S): MARPAT 136:264280
GI

AB The thioesters, useful for optical lenses, recording materials, liquid crystal cells, optical fiber coatings, etc., are I (R1-R4 = H, alkyl, alkoxy, nitro, halo; R5, R8 = S-containing alkyl; R6, R9 = S-containing substituent; R7, R10 = H, Me; Z1, Z2 = O, S). Thus, 2-mercaptomethyl-1,3-dithiolane was reacted with benzenebis(epithiopropylsulfide) and esterified with acrylic chloride to give I [R1-R5, R7, R8, R10 = H; R6, R9 = (1,3-dithiolan-2-yl)methylthio; Z1, Z2 = S], which was mixed with Darocur 1173 (photoinitiator), resorcinol diglycidyl ether diacrylate, and divinylbenzene and cured by UV-irradiation to give a transparent lens showing reflective index 1.659, Abbe number 33.8, Tg $\geq 70^\circ$, and good impact resistance.

IT 405261-33-8P 405261-34-9P
405261-35-0P 405261-36-1P

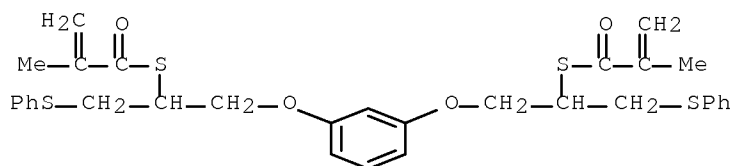
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(sulfur-containing (meth)acrylic acid thioesters for polymers for optical materials)

RN 405261-33-8 HCAPLUS

CN 2-Propenoic acid, 1,3-phenylenebis[oxy(2-hydroxy-3,1-propanediyl)] ester, polymer with diethenylbenzene and 1,3-phenylenebis[oxy[1-[(phenylthio)methyl]-2,1-ethanediyl]] bis(2-methyl-2-propenethioate) (9CI) (CA INDEX NAME)

CM 1

CRN 405261-29-2
CMF C32 H34 O4 S4

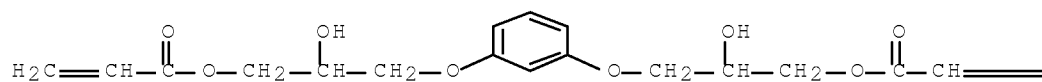


CM 2

CRN 126659-18-5

CMF C18 H22 O8

PAGE 1-A



PAGE 1-B

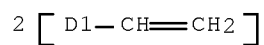


CM 3

CRN 1321-74-0

CMF C10 H10

CCI IDS



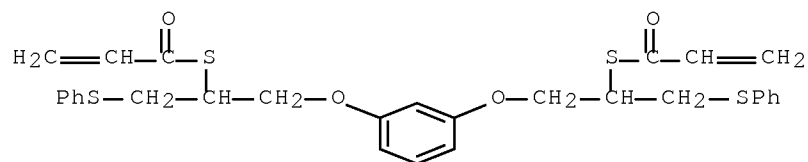
RN 405261-34-9 HCAPLUS

CN 2-Propenoic acid, 1,3-phenylenebis[oxy(2-hydroxy-3,1-propanediyl)]
 ester, polymer with diethenylbenzene and
 1,3-phenylenebis[oxy[1-[(phenylthio)methyl]-2,1-ethanediyl]]
 di-2-propenethioate (9CI) (CA INDEX NAME)

CM 1

CRN 405261-26-9

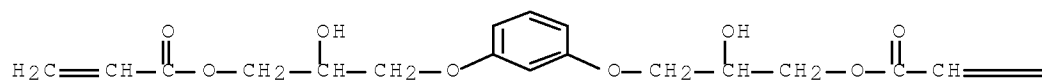
CMF C30 H30 O4 S4



CM 2

CRN 126659-18-5
CMF C18 H22 O8

PAGE 1-A

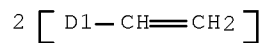


PAGE 1-B



CM 3

CRN 1321-74-0
CMF C10 H10
CCI IDS

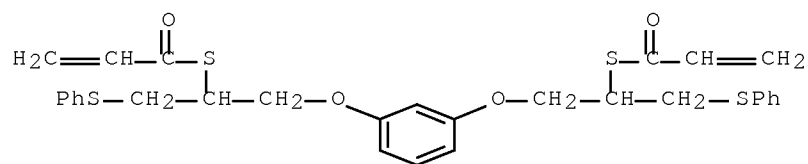


RN 405261-35-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, oxydi-2,1-ethanediyl ester, polymer
with 1,3-phenylenebis[oxy(2-hydroxy-3,1-propanediyl)]
di-2-propenoate and 1,3-phenylenebis[oxy[1-[(phenylthio)methyl]-2,1-
ethanediyl]] di-2-propenethioate (9CI) (CA INDEX NAME)

CM 1

CRN 405261-26-9
CMF C30 H30 O4 S4

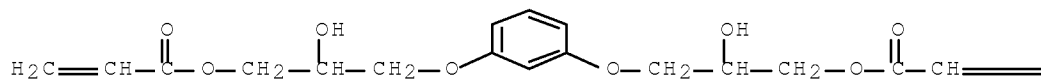


CM 2

CRN 126659-18-5

CMF C18 H22 O8

PAGE 1-A



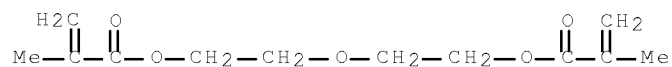
PAGE 1-B

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CM 3

CRN 2358-84-1

CMF C12 H18 O5



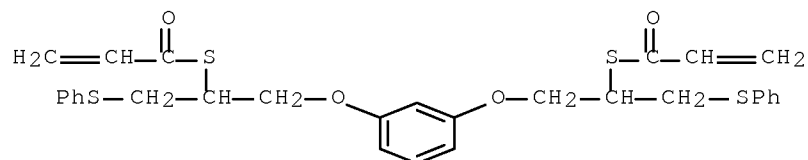
RN 405261-36-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, phenyl ester, polymer with
1,3-phenylenebis[oxy(2-hydroxy-3,1-propanediyl)] di-2-propenoate and
1,3-phenylenebis[oxy[1-[(phenylthio)methyl]-2,1-ethanediyl]]
di-2-propenethioate (9CI) (CA INDEX NAME)

CM 1

CRN 405261-26-9

CMF C30 H30 O4 S4

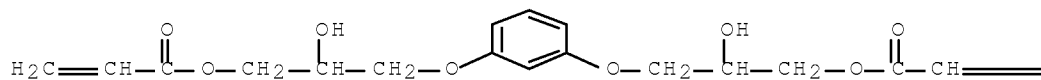


CM 2

CRN 126659-18-5

CMF C18 H22 O8

PAGE 1-A



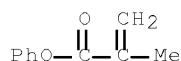
PAGE 1-B

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CM 3

CRN 2177-70-0

CMF C10 H10 O2



IC ICM C08F020-38
ICS C07C323-12; C07C327-22; C07C327-28; C07D277-10; C07D277-16;
C07D277-56; C07D333-40; C07D339-06; C07D339-08; C07D341-00;
C08F002-50; G02B001-04; G02C007-02
CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 37, 73, 74
ST sulfur acrylate thioester polymer optical lens; photocurable
benzene dithiolanylmethylthio acryloyloxythio propyl ether
IT 405261-30-5P 405261-31-6P 405261-32-7P 405261-33-8P
405261-34-9P 405261-35-0P 405261-36-1P
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical
or engineered material use); PREP (Preparation); USES (Uses)
(sulfur-containing (meth)acrylic acid thioesters for polymers for
optical materials)

L30 ANSWER 14 OF 16 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1999:802859 HCAPLUS Full-text

DOCUMENT NUMBER: 132:50401

TITLE: Active energy ray-curable resin compositions
with fast curability and transparent optical
sheets made from them

INVENTOR(S): Motonaga, Akira; Konami, Yukichi

PATENT ASSIGNEE(S): Mitsubishi Rayon Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11349645	A	19991221	JP 1998-163365	19980611

PRIORITY APPLN. INFO.:

JP 1998-163365

19980611

AB The compns. useful for brightness-enhancing prism of LCD, Fresnel lens of projection TV set, lenticular lens, etc., comprise (A) terminally di(meth)acrylated (optionally alkoxyated and halogenated) bisphenol-based diurethane compds., 10-60, (B) vinyl compds. having >1 double bonds and viscosity at 25° of <100 mPa·s, 20-60, (C) other type of vinyl compds. 10-60 parts, and (D) radical initiators at 0.01-5 phr (based on resin forming monomers), and give cured products with refractive index (n) >1.58. Thus, heating Takenate 500 388.4 with Viscoat 192 (phenoxyethyl acrylate) 783.1 and 2-(4-acryloxyethoxy-3,5-dibromophenyl)-2-(4-hydroxyethoxy-3,5-dibromophenyl)propane 2744 g in the presence of Bu₂Sn dilaurate and an antioxidant at 70° for 8 h gave a diacrylated product mixture. Mixing the mixture 22 with phenoxyethyl acrylate 20, TS 26 [2,2-bis(4-methacryloylethoxy-3,5-dibromophenyl)propane] 18, BR 31 (tribromophenoxyethyl acrylate) 40 and 2-hydroxy-2-methyl-1-phenylpropan-1-one 2.0 parts at 40° gave a UV-curable resin composition for making prism.

IT 252763-64-7P

RL: DEV (Device component use); IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); PREP (Preparation); USES (Uses)

(manufacture of radiation-curable resin compns. with fast curability and transparent optical sheets made from them)

RN 252763-64-7 HCAPLUS

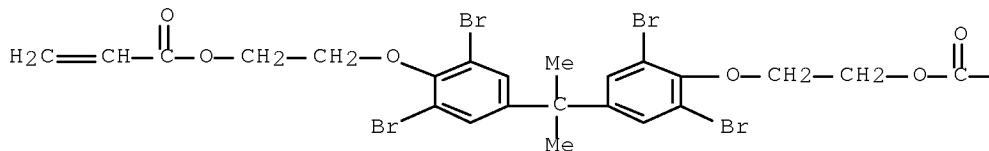
CN 2-Propenoic acid, 1,4-phenylenebis[methyleneiminocarbonyloxy-2,1-ethanediyl] ester, polymer with 2-phenoxyethyl 2-propenoate and S,S'-(thiodi-4,1-phenylene) bis(2-methyl-2-propenethioate) (9CI) (CA INDEX NAME)

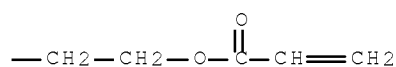
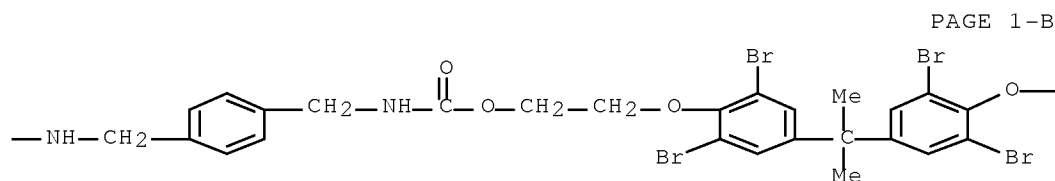
CM 1

CRN 252669-30-0

CMF C54 H52 Br8 N2 O12

PAGE 1-A

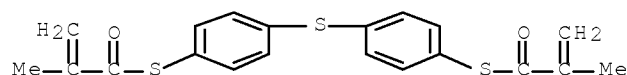




CM 2

CRN 129283-82-5

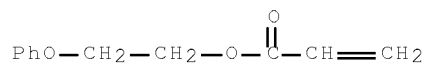
CMF C20 H18 O2 S3



CM 3

CRN 48145-04-6

CMF C11 H12 O3



IC ICM C08F290-06
 ICS C08F002-50; C08F220-36; G02B001-04; G02B003-06; G02B003-08
 CC 35-4 (Chemistry of Synthetic High Polymers)
 Section cross-reference(s): 76
 IT Polymerization catalysts
 (photopolymer.; manufacture of radiation-curable resin
 compns. with fast curability and transparent optical sheets made
 from them)
 IT 252669-33-3P 252669-34-4P 252669-35-5P 252669-36-6P
 252763-62-5P 252763-64-7P
 RL: DEV (Device component use); IMF (Industrial manufacture); POF
 (Polymer in formulation); PRP (Properties); PREP (Preparation); USES
 (Uses)
 (manufacture of radiation-curable resin compns. with fast curability
 and transparent optical sheets made from them)

September 4, 2009

10/553,488

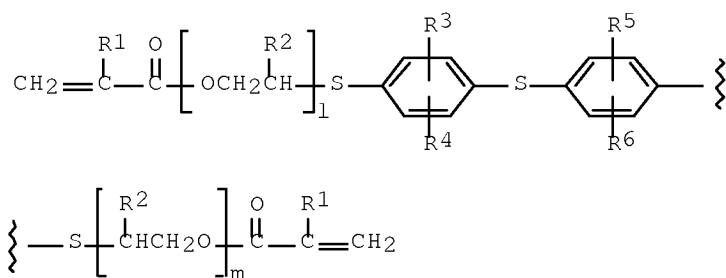
104

DOCUMENT NUMBER: 132:36800
 TITLE: Active energy beam-curable sulfur-containing acrylate compositions and optical sheets obtained from them
 INVENTOR(S): Motonaga, Akira; Konami, Yukichi
 PATENT ASSIGNEE(S): Mitsubishi Rayon Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO. -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE
JP 11349615	A	19991221	JP 1998-163364	19980611

PRIORITY APPLN. INFO.: <-- JP 1998-163364 19980611

GI



AB Title compns., giving cured products with $n \geq 1.60$, contain (A) S-containing di(meth)acrylates I ($R_1-R_6 = H, Me$; $l, m = 0, 1$) 30-60, (B) S-containing di(meth)acrylates $CH_2:CR_7C(:O)(OR_8)_nSCH_2C_6H_4CH_2S(R_8O)pC(:O)CR_7:CH_2$ ($R_7 = H, Me$; $R_8 = C_1-4$ hydrocarbyl; $n, p = 1-5$) 20-60, (C) halo-free compds. having ≥ 1 polymerizable double bonds 10-40, and (D) radical polymerization initiators 0.01-5 parts. Thus, a composition containing bis(4-methacryloylthiophenyl) sulfide, p-bis(β -methacryloyloxyethylthio)xylylene, phenoxyethyl acrylate, A-BPE 4 [2,2-bis(4-acryloyloxydiethoxyphenyl)propane], and 2-hydroxy-2-methyl-1-phenylpropan-1-one was applied on an A 4100 (PET) film and irradiated with UV light to give a tack-free prism sheet showing $n 1.604$, high transparency, and good adhesion strength.

IT 252335-29-8P 252335-30-1P
 252335-31-2P 252335-32-3P 252335-33-4P
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (active energy beam-curable sulfur-containing acrylate compns. for

optical sheets)

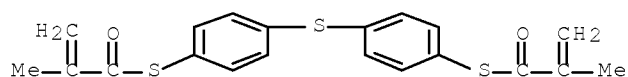
RN 252335-29-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-,
 1,4-phenylenebis(methylenethio-2,1-ethanediyl) ester, polymer with
 (1-methylethylidene)bis(4,1-phenyleneoxy-2,1-ethanediyl) di-2-propenoate,
 2-phenoxyethyl 2-propenoate and
 S,S'-(thiodi-4,1-phenylene) bis(2-methyl-2-propenethioate) (9CI)
 (CA INDEX NAME)

CM 1

CRN 129283-82-5

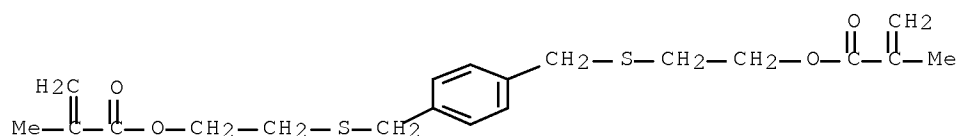
CMF C20 H18 O2 S3



CM 2

CRN 112503-98-7

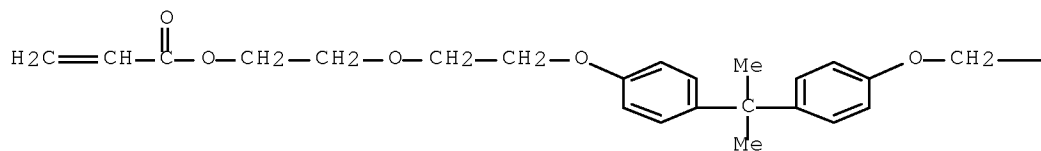
CMF C20 H26 O4 S2



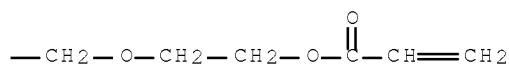
CM 3

CRN 56361-55-8

CMF C29 H36 O8



PAGE 1-A

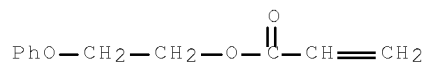


PAGE 1-B

CM 4

CRN 48145-04-6

CMF C11 H12 O3



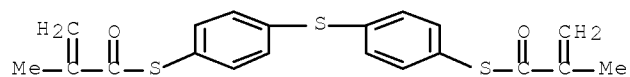
RN 252335-30-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-,
 1,4-phenylenebis(methylenethio-2,1-ethanediyl) ester, polymer with
 2-phenoxyethyl 2-propenoate and S,S'-(thiodi-4,1-phenylene)
 bis(2-methyl-2-propenethioate) (9CI) (CA INDEX NAME)

CM 1

CRN 129283-82-5

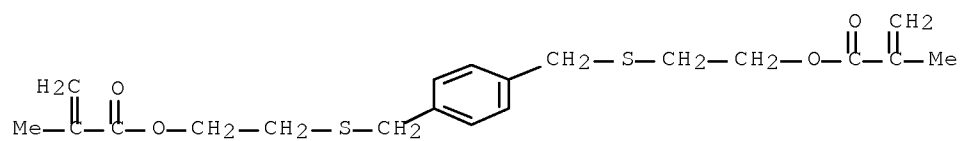
CMF C20 H18 O2 S3



CM 2

CRN 112503-98-7

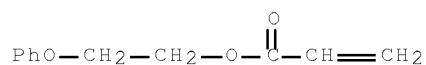
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CM 3

CRN 48145-04-6

CMF C11 H12 O3



RN 252335-31-2 HCAPLUS

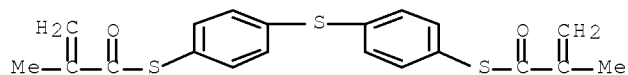
CN 2-Propenoic acid, 2-methyl-,

1,4-phenylenebis(methylenethio-2,1-ethanediyl) ester, polymer with phenylmethyl 2-methyl-2-propenoate and S,S'-(thiodi-4,1-phenylene) bis(2-methyl-2-propenethioate) (9CI) (CA INDEX NAME)

CM 1

CRN 129283-82-5

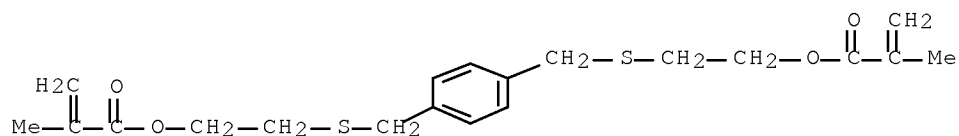
CMF C20 H18 O2 S3



CM 2

CRN 112503-98-7

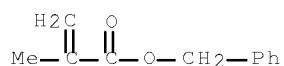
CMF C20 H26 O4 S2



CM 3

CRN 2495-37-6

CMF C11 H12 O2



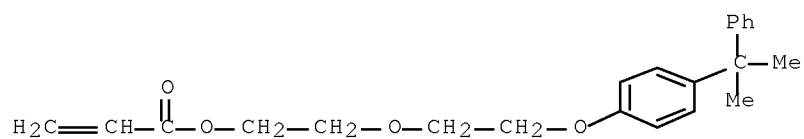
RN 252335-32-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-,
1,4-phenylenebis(methylenethio-2,1-ethanediyl) ester, polymer with
2-[2-[4-(1-methyl-1-phenylethyl)phenoxy]ethoxy]ethyl 2-propenoate
and S,S'-(thiodi-4,1-phenylene) bis(2-methyl-2-propenethioate) (9CI)
(CA INDEX NAME)

CM 1

CRN 192462-21-8

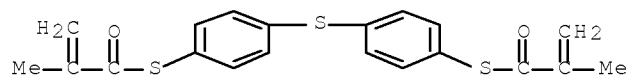
CMF C22 H26 O4



CM 2

CRN 129283-82-5

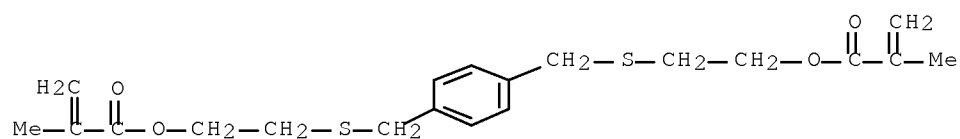
CMF C20 H18 O2 S3



CM 3

CRN 112503-98-7

CMF C20 H26 O4 S2



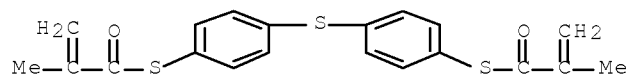
RN 252335-33-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-,
 1,4-phenylenebis(methylenethio-2,1-ethanediyl) ester, polymer with
 (1-methylethylidene)bis(4,1-phenyleneoxy-2,1-ethanediyl) di-2-propenoate and S,S'-(thiodi-4,1-phenylene)
 bis(2-methyl-2-propenethioate) (9CI) (CA INDEX NAME)

CM 1

CRN 129283-82-5

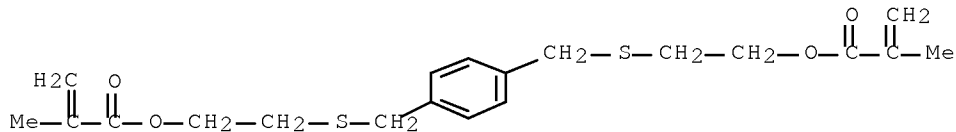
CMF C20 H18 O2 S3



CM 2

CRN 112503-98-7

CMF C20 H26 O4 S2

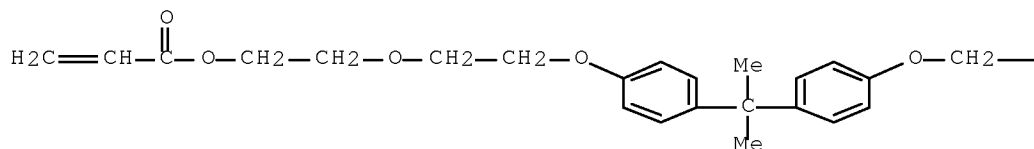


CM 3

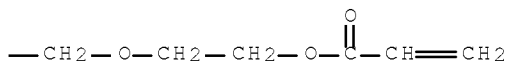
CRN 56361-55-8

CMF C29 H36 O8

PAGE 1-A



PAGE 1-B



IC ICM C08F002-50
 ICS C08F220-38; G02B001-04; G02B003-06; G02B003-08
 CC 38-3 (Plastics Fabrication and Uses)
 Section cross-reference(s): 73
 ST photocurable thio acrylate optical sheet transparency;
 refractive index photocurable thio acrylate polymer; prism
 photocurable thio acrylate polymer
 IT 252335-29-8P 252335-30-1P
 252335-31-2P 252335-32-3P 252335-33-4P
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical
 or engineered material use); PREP (Preparation); USES (Uses)
 (active energy beam-curable sulfur-containing acrylate compns. for
 optical sheets)

L30 ANSWER 16 OF 16 HCAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 1992:540554 HCAPLUS Full-text
 DOCUMENT NUMBER: 117:140554
 ORIGINAL REFERENCE NO.: 117:24199a,24202a
 TITLE: Electrophotographic lithographic master plates
 INVENTOR(S): Kato, Eiichi; Osawa, Sadao
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 24 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese

September 4, 2009

10/553,488

110

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
JP 03211557	A	19910917	JP 1990-7692	199001 17

PRIORITY APPLN. INFO.:

JP 1990-7692

199001
17

AB In the title lithog. master plate, comprising an elec. conductive support and a photoconductive layer containing a photoconductive compound and a binder resin, and used to prepare a lithog. plate by elec. charging, imagewise exposing, developing to form a toner image, and removing the photoconductor layer from image-nonbearing regions, the binder resin contains ≥ 1 polymeric components which undergo polymer backbone cleavage upon irradiation with actinic radiation and ≥ 1 polymeric components which yield acid groups upon irradiation with actinic radiation. The material has improved photosensitivity and gives plates with good printing characteristics.

IT 143451-69-8

RL: USES (Uses)

(binder resin, electrophotog. lithog. master plate from)

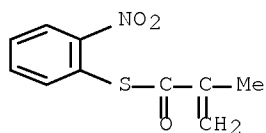
RN 143451-69-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with diphenylmethanone
O-(2-methyl-1-oxo-2-propenyl)oxime, 2-methylphenyl
2-methyl-2-propenoate and S-(2-nitrophenyl)
2-methyl-2-propenethioate (9CI) (CA INDEX NAME)

CM 1

CRN 143451-68-7

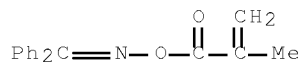
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CM 2

CRN 86804-16-2

CMF C17 H15 N O2



September 4, 2009

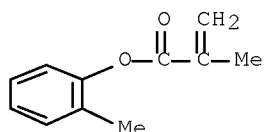
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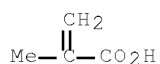
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CM 4

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CMF C4 H6 O2



IC ICM G03G005-05

ICS C08L057-00; C08L057-10; C08L057-12; G03G013-26

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 143435-00-1 143435-02-3 143435-03-4 143435-04-5 143435-05-6
143435-06-7 143435-07-8 143435-08-9 143435-10-3 143451-60-9
143451-62-1 143451-63-2 143451-65-4 143451-67-6
~~143451-69-8~~ 143451-71-2

RL: USES (Uses)

(binder resin, electrophotog. lithog. master plate from)

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RECORD (1 CITINGS)

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